

CASE

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BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION

CASE NO. 99-042

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PUBLIC SERVICE
COMMISSION

RE: LG&E/GOSHEN UTILITIES

Pursuant to notice duly given, the above-styled matter came to be heard February 26, 1999, at 10:00 a.m. in the Hearing Room of the Kentucky Public Service Commission, 730 Schenkel Lane, Frankfort, Kentucky 40601; The Honorable Paul Shapiro presiding.

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BEFORE THE
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CASE NO. 99-042

RE: LG&E/GOSHEN UTILITIES

APPEARANCES:

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Hearing Officer
PUBLIC SERVICE COMMISSION

Hon. Gerald Wuetcher
Legal Counsel
PUBLIC SERVICE COMMISSION

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1 HEARING OFFICER SHAPIRO:

2 This is a hearing before the Kentucky Public
3 Service Commission in the matter of the Louisville
4 Gas & Electric Company and Goshen Utilities, Inc.,
5 into--it involves an investigation into alleged
6 unsafe practices. Is Louisville Gas & Electric
7 Company ready to proceed?

8 MR. BROOKS:

9 Yes, we are.

10 HEARING OFFICER SHAPIRO:

11 And is Goshen Utilities, Inc., ready to proceed?

12 MR. SAUER:

13 Yes, we are.

14 HEARING OFFICER SHAPIRO:

15 Can we have appearance of counsel, first for
16 Louisville Gas & Electric Company?

17 MR. BROOKS:

18 Appearing for LG&E, my name is Douglas Brooks, my
19 mailing address is 220 West Main Street, Post
20 Office Box 32010, Louisville, Kentucky 40232.

21 HEARING OFFICER SHAPIRO:

22 For Goshen Utilities, Inc.?

23 MR. SAUER:

24 Jeffrey C. Sauer, S-a-u-e-r, 1200 One Riverfront

1 Plaza, Louisville, Kentucky 40202.

2 HEARING OFFICER SHAPIRO:

3 Apparently we have one preliminary matter here.
4 We have a motion for leave to file a response out
5 of time. Is there any objection on the part of--
6 it is a motion by Louisville Gas & Electric, does
7 Goshen Utilities have any objection?

8 MR. SAUER:

9 We have no objections.

10 HEARING OFFICER SHAPIRO:

11 Then we will allow the motion be filed, the
12 response to be filed as requested.

13 MR. BROOKS:

14 Thank you.

15 HEARING OFFICER SHAPIRO:

16 Any other preliminary matters that we need to take
17 up at this time?

18 MR. WUETCHER:

19 Your Honor, just for purposes of the record, if
20 the Commission Staff could make its appearance.

21 HEARING OFFICER SHAPIRO:

22 Oh, I'm sorry.

23 MR. WUETCHER:

24 For the Commission Staff, Gerald Wuetcher.

1 HEARING OFFICER SHAPIRO:

2 Since they are so quiet I forgot he was there.

3 Okay. Any other matters that we need to take up

4 at this time then? Do you have anything?

5 MR. WUETCHER:

6 The Commission Staff has no additional matters.

7 HEARING OFFICER SHAPIRO:

8 Okay.

9 MR. WUETCHER:

10 We do have one since the response--both utilities

11 have filed responses, we would ask that the

12 responses of both utilities be made a part of the

13 evidence of record of today's hearing and

14 incorporated by reference into the record of

15 today's hearing.

16 MR. BROOKS:

17 No objection.

18 MR. SAUER:

19 No objection.

20 HEARING OFFICER SHAPIRO:

21 Essentially, we have two different--we have both

22 parties who will stand on sort of equal footing so

23 far as the procedure is concerned, so I--have you

24 all discussed who wants to put on their evidence

1 first? Mr. Brooks, would you--

2 MR. BROOKS:

3 I guess we haven't--I don't think it makes a lot
4 of difference. We would be willing to go first.

5 MR. SAUER:

6 That's fine.

7 HEARING OFFICER SHAPIRO:

8 Okay. Mr. Brooks, why don't you call your first
9 witness?

10 MR. BROOKS:

11 Okay. I call James Rush to the stand.

12 (WITNESS DULY SWORN)

13

14 The witness, JAMES WILLIAM RUSH, III, having first
15 been duly sworn, testified as follows:

16 DIRECT EXAMINATION

17 BY MR. BROOKS:

18 Q Would you state your name for the record please?

19 A James William Rush, III.

20 Q And are you better known by your nick name Buzz?

21 A Yes, I am.

22 Q I'll be referring to him that way so nobody
23 thinks we are talking a different language.

24 By whom are you employed and what is your

1 current position?

2 A Louisville Gas & Electric Company, my current
3 position is Manager of Gas Distribution for
4 our eastern service territory.

5 Q And will you please generally explain what
6 your responsibilities are in that job?

7 A I have overall responsibility for the folks
8 who maintain, operate and build our gas
9 distribution center, or gas distribution
10 facilities for our eastern service territory.

11 Q And what does that eastern service territory
12 include?

13 A Basically, it is everything outside of the
14 Watterson Expressway and east of Bardstown
15 Road, including Oldham County.

16 Q And does that responsibility include all gas
17 main extension projects in the eastern part
18 of the service territory?

19 A Yes, it does.

20 Q Would you please briefly describe your
21 college education?

22 A I have a Bachelor's Degree in Civil
23 Engineering from the University of Kentucky.

24 Q And will you briefly describe your employment

1 experience in the natural gas industry?

2 A Yes. I began my employment as an engineer
3 for Texas Gas Transmission Corporation in
4 1980. I worked for them for about eight
5 years and then came to LG&E as a staff
6 engineer for the Division Superintendent of
7 this--the Superintendent of the Gas Division
8 and worked my way up to the management
9 position that I'm currently in.

10 Q And when did you start with LG&E?

11 A In 1987.

12 Q Mr. Rush, can you describe, basically, for us
13 what is directional drilling or directional
14 boring?

15 A Sure. Directional drilling is somewhat self-
16 explanatory but, basically, it is a process
17 that most people that are familiar with
18 drilling process--it is a drill that runs,
19 basically, horizontal and the directional
20 term comes from this drilling head can be
21 guided and it is a method that we use to
22 drill a horizontal hole under yards, streets,
23 whatever we want to drill a hole under in
24 order to install gas pipelines. It is a much

1 less intrusive method, it doesn't require as
2 much excavation of the surface.

3 Q And in what type of activities does LG&E or
4 its contractors use directional drilling,
5 when you are doing what?

6 A Primarily, we use it where we are installing
7 mains in established yards and, typically,
8 that means replacement projects where we are
9 replacing an older main or where we are
10 installing new main in existing established
11 subdivisions.

12 Q How long has LG&E and its contractors been
13 using directional drilling?

14 A We have been using it extensively since 1996.
15 There were a few small projects done, pilot
16 projects done previous to that, but we have
17 used it as a method extensively at LG&E since
18 1996.

19 Q Now, how often and in what instances do we
20 use it and can you give us some kind of order
21 of magnitude of how many, how much pipe has
22 been installed using this over the--since
23 '96?

24 A Well, I can give you--I know some of our

1 staff is familiar with our large scale
2 replacement program that we have embarked
3 upon since 1996 where we are taking large
4 sections of our existing gas infrastructure
5 and replacing the older outdated mains in
6 those areas. And on those projects alone, in
7 our main replacement projects since 1996, we
8 have installed about 70 miles of gas main
9 using directional drilling. In addition to
10 that I mentioned that we use directional
11 drilling for existing subdivisions where we
12 are providing service primarily on petition
13 type work, and we do about 13 miles a year
14 using directional drilling on those types of
15 projects as well.

16 Q Is this technique utilized throughout the gas
17 industry, to your knowledge?

18 A Yes, it is.

19 Q Would you consider this technique to be
20 commonly accepted in the industry?

21 A Yes, I would.

22 Q Is this technique the subject of industry
23 standards or guidelines?

24 A Yes, it is.

1 Q And has LG&E promulgated its own procedures
2 for its and its contractors use?

3 A Yes. We utilize the GRI, Gas Research
4 Institute, publication where the industry
5 develops some standards recognizing that
6 directional drilling is a little different
7 than the old techniques. Some procedures
8 were--some guidelines were published by the
9 Gas Research Institute. We use those
10 guidelines to develop our own in house
11 directional drilling procedures.

12 Q And those procedures were attached to LG&E's
13 response to the Commission's Order that was
14 filed?

15 A Yes.

16 Q Can you summarize, please, what the
17 advantages to a gas distribution utility like
18 LG&E are of this technique?

19 A Well, there is a couple of advantages. One
20 is cost, the cost advantage primarily comes
21 from--the biggest part of installing a gas
22 main is the clean up. Putting the gas pipe
23 in the ground is not an expensive part of the
24 process. The most expensive part is getting

1 the ground back the way it was to begin with.

2 Q And this is after we would traditionally
3 trench, dig a trench throughout a yard?

4 A Yes.

5 Q Continue.

6 A So, it greatly minimizes the cost of
7 restoration on the job. It is also very much
8 an advantage in terms of customer
9 satisfaction. Customers--since we started
10 using that technique our customer complaints
11 have dropped significantly on gas main
12 installation work we believe. And we have
13 gotten some very good feed back from
14 customers where we have done work like this,
15 like they didn't even know we were coming
16 through and comments such as that, where they
17 were used to the older jobs that made a much
18 bigger mess during construction and were
19 difficult to put back to a customer's
20 salification after we completed the job. So,
21 primarily, the customer satisfaction as well
22 as cost advantages to that method.

23 Q Are you familiar with the subject matter of
24 this case, that being the dispute between

1 LG&E and Goshen Utilities about the locating
2 of sewer service lines in the Lakeview
3 Subdivision in the Goshen area?

4 A Yes, I am.

5 Q Can you please briefly describe your personal
6 involvement in this matter?

7 A Well, we were installing a job using
8 directional drilling in February of last year
9 and it came to our attention that there were
10 some sewer services that were damaged in that
11 area. It also came to our attention at the
12 time that Goshen was unable to locate their
13 facilities on that job and was refusing to do
14 so, basically, wanting us to take that
15 responsibility for locating their services
16 and avoiding the damage to them. That was
17 brought to my attention as manager in that
18 area. And I subsequently was involved in
19 discussions with Goshen on trying to resolve
20 that issue and about the controversy over
21 whose responsibility it was to locate their
22 facilities when we are excavating in their
23 area.

24 Q Can you please describe for us the initial

1 Lakeview main extension project, the one that
2 was done, I believe, in February of last
3 year?

4 A Yes. It was a job that involved about 4,300
5 feet of main, affecting about 56 customers, I
6 believe. It took us about four weeks to
7 complete the job.

8 Q Who did the actual drilling, LG&E or a
9 contractor?

10 A It was Hall Contracting.

11 MR. BROOKS:

12 I'm going to hand out an exhibit that we
13 prepared, a map or plats of the job so
14 that everybody has it for reference.
15 I'm going to hand three copies to the
16 court reporter to be marked as LG&E
17 Exhibit 1.

18 Q Mr. Rush, I'll ask you to look at the
19 document I just gave to you and has been
20 marked by the court reporter as LG&E Exhibit
21 1. Will you please identify this document
22 for us?

23 A Yes. If you look at the second and third
24 pages, they are copies of the construction

1 drawing that is used for the construction of
2 the project. The top page--we do these
3 designs on a computer aided drafting tool--
4 and the top page was a much smaller scale so
5 that you can see the entire job without it
6 being broken up as it is on the other two
7 prints.

8 Q On that top page can you point out for us
9 where, if it is, where our gas main, the main
10 that was installed, where or how that is
11 depicted on that top page?

12 A The solid line that you see running through
13 there is the gas line. Looking over here to
14 the far left you will see a dotted line
15 coming down the road there, I don't remember
16 what road that is, but the dotted line
17 depicts our existing gas main that we tied
18 into and the solid line is the new
19 construction.

20 MR. BROOKS:

21 I would ask that LG&E Exhibit 1 be
22 admitted into evidence.

23 HEARING OFFICER SHAPIRO:

24 Any objections?

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MR. SAUER:

No objection.

HEARING OFFICER SHAPIRO:

So ordered.

(EXHIBIT SO MARKED: LG&E Exhibit No. 1)

Q What problems did LG&E encounter when it started on this project?

A Well, we had, as I mentioned earlier, Goshen--typically, on a construction project the contractor will notify the operator either through the BUD One call or directly to locate their facilities. In this case, due to Goshen's not having good records and not having good knowledge of where the facilities were, the Goshen representative met our inspector and the contractor on the job to try to give us, as best they can, location of their services. They admitted that the locations, they admitted that they really didn't know where they were, they could give us--they would try to give us the best they could for where those were located. So, that was--made the job a little more difficult in the beginning in trying to

1 ascertain where their utilities were in the
2 beginning of the job. We did wind up, or our
3 contractor wound up hitting, I think,
4 ultimately, four sewer services on that job
5 and our response to that was to come out and
6 immediately make those repairs and,
7 subsequently, also notify customers that if
8 they did find their sewers not working
9 properly to make sure that they notify Goshen
10 as well as LG&E so that we could come out and
11 take a look.

12 Q Has LG&E, prior to this project, worked in
13 Goshen Utility service area before?

14 A Yes, we had.

15 Q Had we encountered this problem with them
16 before in terms of the locating services?

17 A We--yes, we had encountered the same--we had
18 the same problems even on trenching jobs
19 because even on a trenching job the
20 Underground Protection Act applies,
21 obviously, to that as well, and that we need
22 to try to spot all the utilities prior to
23 trenching to try to avoid damage to any of
24 those utilities. And we had the same type of

1 problems with Goshen in working their areas
2 and maybe a couple of years previous to this
3 one. The difference being it magnified the
4 problem when we used the directional drilling
5 technique because it becomes more important
6 to get those facilities located. I would say
7 that the experience working with Goshen
8 Utilities, our contractors experience working
9 with Goshen Utilities was a good one. We
10 have a good relationship with them and they
11 were very cooperative in attempting to locate
12 their facilities. They just had limited
13 ability to do so. But they were--the people
14 that worked--that met us and our contractor
15 on the job were very cooperative in trying to
16 help us as best they could.

17 Q What, in the general sense, what is LG&E's
18 position regarding who has responsibility for
19 locating underground facilities when we are
20 doing excavation?

21 A LG&E's position is that it is the
22 responsibility of the utility or the operator
23 of the system, the system operator, to locate
24 their facilities prior to an excavator doing

1 work.

2 Q In the procedures for installing pipe by
3 directional drilling that LG&E has
4 promulgated and uses and that we provided as
5 an attachment to the response we filed
6 tomorrow, does LG&E address the location
7 issue?

8 A Yes, they do.

9 Q And do you have a copy of those procedures
10 with you up there Mr. Rush?

11 A I don't believe I do.

12 Q Let me provide you with a copy then.

13 A No, I don't.

14 Q Can you locate for us, tell us specifically
15 what sections in the guidelines address the
16 location issue?

17 A Yes, in 6.1 of these procedures specifically
18 --well, basically, that is the predrilling
19 operations, it is a big part of the
20 predrilling operations. So, if you look at
21 6.1.4 it says that the contractor shall call
22 before you dig at least two, but not longer
23 than ten, working days prior to performing
24 any excavating activities. And then the

1 following section, 6.1.5, it says that the
2 contractor shall spot all utility services in
3 the proposed drill path to determine
4 horizontal and vertical locations.

5 Contractor shall locate and mark all sewer
6 lines and laterals and test hole those along
7 the drill path.

8 Q Is 6.1.5 the obligation of the contractor
9 there to spot, locate, mark, does that occur
10 --tell me in what sequence does that occur in
11 relationship to the location required under
12 the--Before You Dig Act?

13 A Well--

14 Q Who does what first?

15 A It is the responsibility of the contractor to call
16 to have the other utilities located. It is also
17 the responsibility--we want the contractor not
18 just to stop there and trust that everything is
19 perfect there, we want to make it the contractors
20 responsibility to take that extra step to work
21 with the locating utilities to ascertain as best
22 they can the location of the facilities prior to
23 doing the excavating. The purpose of 6.1.5 is to
24 put the burden on the contractor to make sure that

1 they are working with the operating utility and
2 that they understand what they have been told and
3 what the marks mean and the location of those
4 facilities.

5 Q Now, Mr. Rush, you spoke about the broken
6 sewer service lines that were caused during
7 this first Lakeview Subdivision job, what did
8 LG&E do about this?

9 A Well, we were notified--I think the first one
10 was about a week after we had completed the
11 job, we were notified, I believe, by Goshen
12 that we had damaged a sewer service out there
13 and we immediately responded with a crew.
14 Or, actually, with the contractor, had the
15 contractor back out there to work with Goshen
16 and find the damage and repair the damage.

17 Q Did LG&E and Goshen discuss the advisability
18 of sending all the residents along the path
19 of that main a notice about potential safety
20 issues such as those encountered?

21 A Yes.

22 Q Did LG&E, in fact, send such a notice?

23 A Yes. I believe Goshen sent a notice as well
24 as LG&E notifying all the affected customers

1 on that line that if they do have--experience
2 any problems with their sewers that they
3 should notify us as well as Goshen so that we
4 can investigate and determine if it could
5 possibly have been caused by that
6 construction.

7 Q Of primary concern of the parties in this
8 case is the safety or the status of the sewer
9 service lines of the other customers who have
10 not notified either of us that they have had
11 any problems that could have been caused by
12 the sewer service lines being pierced by our
13 main. What has happened, from our
14 perspective, since February of last year
15 regarding inspecting the remaining sewer
16 service lines, what actions have we taken?

17 A Well, first of all, again, we repaired the
18 ones that were damaged, we notified all the
19 customers who were--could be potentially
20 affected by that that if they had any trouble
21 they should call us and Goshen. Subsequent
22 to the last informal discussion we had up
23 here in June or July, in August we met--by
24 we, I mean, that Lloyd--Mr. Eades, myself,

1 Mr. Schroder and the gentleman, sewer person
2 on the PSC staff, met on the job to try to, I
3 think, basically, let's see what we have got
4 out here and see what it looks like and let's
5 see if we can determine a good solution to
6 this situation. During that meeting we
7 discussed some alternatives for what could be
8 done to get those sewer services located so
9 that we could excavate and determine if there
10 was any damage. I suggested to Mr. Eades
11 that we could send a crew out to work with
12 his folks to try to help them find a way to
13 locate those services so that we could
14 excavate. I want to emphasize that we are--
15 that we have--have been all along and
16 continue to be willing to go out there and do
17 the excavation and do the inspections and
18 provide the manpower to do so. It is just
19 that we need to know where they are before we
20 know where to dig.

21 Q Can you describe for us, briefly, your
22 understanding of the problems that are caused
23 when a gas main hits or goes through a sewer
24 service, what could happen to homeowner?

1 A What the--the main concern there is that if
2 you have a gas line going through a sewer
3 service inherently there is no major danger
4 in that situation. Where the potential
5 danger is is if that subsequently causes the
6 sewer service to get backed up and a some
7 type of rotorooter type operation is used to
8 clean out the sewer service, that it could
9 puncture the gas main and allow gas to enter
10 the house through the sewer.

11 Q And in that event you could have a,
12 potentially, literally explosive situation?

13 A There is the potential for that, yes.

14 Q Now, if during the first Lakeview Subdivision
15 project, if a sewer service line had been hit
16 or punctured by the installing of the gas
17 main, how long would it take for the
18 homeowner to notice that a problem with their
19 sewer service line existed if one indeed had
20 occurred?

21 A Well, these particular problems, before, we
22 had showed up pretty quickly. And our
23 experience with this type of situation is,
24 typically, they will show up pretty quick if

1 there is going to be a problem on a sewer
2 service.

3 Q Has LG&E received any calls from residents
4 out there other than the initial four
5 regarding sewer backups or have you heard
6 otherwise of any such complaints?

7 A No.

8 Q What does the fact that no other homeowners
9 apparently have complained of sewer backups
10 tell you?

11 A It tells me that there probably is not any
12 additional damage done to the sewers in that
13 area, although, I would add that, as I
14 mentioned earlier, there is a slight
15 possibility that there could be damage to
16 those services that could cause the sewer
17 line to back up at a future date. My
18 experience tells us that it is going to
19 happen pretty quickly but there is that
20 slight possibility that there could be
21 something that doesn't show up until later.

22 Q Now, LG&E performed a second main extension
23 job in the Lakeview Subdivision last year,
24 did it not?

1 A Yes.

2 Q And about when did that occur?

3 A It was in September time frame.

4 Q Will you please briefly describe what was
5 involved in that job?

6 A That job was about 3,600 feet of main,
7 affected about the same number of customers,
8 I believe, the number was 56 or 57 customers
9 that were on that job. It was a similar job
10 to the original. Southern Pipeline was our
11 contractor that did that job. They bid the
12 job to do it directional drilling.
13 Admittedly, due to communication breakdown on
14 our part, I would prefer they not have even
15 started that job with directional drilling.
16 That was a mistake on our part that that even
17 began that way. But Southern bid the job to
18 do it that way because that was their normal
19 method. They met with Goshen Utilities
20 representatives on the job to again work with
21 them to ascertain the location of the
22 facilities. They spent two ten hour days
23 with contractor personnel and Goshen
24 personnel assisting in locating the, as best

1 they could, where they thought the Goshen
2 utilities were, facilities were. They dug
3 relatively large holes, larger than we
4 normally would to--in the areas where Goshen
5 told us they believed their facilities were,
6 down to a depth below which we would be
7 installing the gas main. Again, spent two
8 days doing all of that work prior to--which
9 is typically what we would do on a job such
10 as this, in digging these holes to
11 determine--to make sure that we can watch the
12 main go through that hole when we are doing
13 the directional drilling. We spent two days
14 doing that and then began the first day of
15 directional drilling. The next day it was
16 brought to my attention that we were in the
17 Goshen area doing directional drilling and I
18 immediately ordered that to be discontinued.
19 Southern Pipeline then completed the job
20 using the older trenching methodology.

21 Q Did the change to the trenching method cause
22 any extra costs?

23 A Certainly.

24 Q Who absorbed those costs?

1 A LG&E did through a change order to the
2 contractor. The contractor, again, bid the
3 job based on using directional drilling
4 techniques and we felt it was only fair to
5 him that he asked to be compensated for the
6 extra expense, for the restoration and extra
7 expense involved in doing--using that method.
8 And we felt it was only fair that we do that.
9 That was about 6,000--\$6,300.00 that we paid
10 him just for that switch from directional
11 drilling to the trenching methodology. There
12 were also some extra expenses so that was
13 paid by LG&E in the form of a change order to
14 the contractor. There were also some
15 significant--relatively significant expenses
16 in that on these jobs there were several
17 locations where Goshen indicated they
18 believed the sewer service was under a
19 driveway. So, we had to break out a number
20 of driveways on that project, as well, and
21 had to hire a--weren't able to find the sewer
22 service under any of those driveways but we
23 had to subsequently have a contractor come
24 back and try to restore the driveway to the

1 customers satisfaction. And that was an
2 expense that we paid, our paving contractor
3 installed. So, with that expense, as well as
4 the change order expense, that cost an extra
5 \$9,000.00, which on 40,000 it was, I don't
6 know, 20% or 30% increase over the other
7 method. And I think that is a conservative
8 estimate. I know our inspector at the time
9 felt that Southern was not trying to gouge us
10 on that, they were really expecting them to
11 ask for more than they did. So, we felt like
12 that was a conservative cost increase. And
13 that doesn't even address the decreased
14 customer satisfaction that we had on the job
15 by having to do the trenching and dig out,
16 basically, a trench across everyone's yard.

17 Q Now, when you talked about the 120 pot holes
18 that were done, to clarify any
19 misunderstanding, the 120 pot holes were done
20 prior, immediately prior, to the commencement
21 of the second Lakeview job?

22 A Yes.

23 Q And that was done in an attempt to locate
24 sewer services?

1 A Yes, that's right.

2 Q And out of 120 how many services were
3 actually found?

4 A I believe three.

5 Q Now, in the--during the time that directional
6 drilling was used in the second job, how many
7 homes, to your knowledge, experienced broken
8 sewer services?

9 A There was one.

10 Q And what was done about that one?

11 A We came out immediately and made the repair
12 on that one as well.

13 Q Now, Mr. Rush, are you generally familiar
14 with the Underground Facilities Damage
15 Prevention Act, also known as the Before You
16 Dig or the BUD Act?

17 A Yes, I am.

18 Q How was LG&E affected itself by this law?

19 A LG&E was affected in that we are both an
20 operator and an excavator. Again, the
21 responsibility, under the Act, of the
22 operator is to provide--basically, the
23 purpose of the Act, the crux of the purpose
24 of the Act is to avoid third party damages,

1 avoid dig ins. And the Act gives specific
2 responsibilities to the excavators as well as
3 specific responsibilities to the system
4 operators. LG&E as a system operator is
5 affected more than we are as an excavator.
6 But our responsibility as a system operator
7 is to provide location when an excavator is
8 going to do work they will call the One Call
9 Center, the One Call Center will notify our
10 contractor that we have hired to do our
11 locating and marking for us and that
12 contractor is dispatched to locate our
13 facilities on that job. So, our
14 responsibilities as the operator is to
15 provide someone to go out and locate our
16 facilities when excavating is to take place.
17 Our responsibility as excavators either on
18 main jobs, on directional drilling jobs, on
19 just simple maintenance is to call the One
20 Call Center within the two to ten day time
21 frame. We will be, as the excavator, we call
22 the One Call Center and allow time,
23 appropriate amount of time for the
24 appropriate locating person, the operators,

1 whoever they have designated to locate their
2 facilities, to go out and locate those
3 facilities and mark those facilities before
4 we go out and do any excavation.

5 Q Is one of the primary responsibilities of the
6 crews that work under you to install gas
7 mains?

8 A The crews--the crews that we have out there--

9 Q As well as contractors?

10 A As well as contractors, most of the work,
11 most of the mains that we install are
12 installed by contractors, although we have
13 crews that are installing mains both by
14 directional drilling and by trenching
15 techniques.

16 Q But installing mains is a major function of
17 your area?

18 A Yes, it is.

19 Q How do utilities that LG&E deals with in gas
20 main extension jobs apply to the BUD law with
21 regard to locating their facilities? What is
22 your experience with that?

23 A Same as we do, as, again, as operators of a
24 utility, they will go out and locate their

1 facilities and mark their facilities prior to
2 the excavation once they have been notified.
3 Q And does this include small municipal or
4 privately owned utilities?
5 A Yes, it does.
6 Q Any exceptions?
7 A The only exception would be Goshen Utilities.
8 Q Now, Mr. Rush, have you had the opportunity
9 to see and read the response to the
10 Commission's Order that Goshen Utilities
11 filed in this case?
12 A Yes, I have.
13 Q Do you have a copy of that with you?
14 A Yes, I do.
15 Q Will you turn to their numbered paragraph
16 three on the second page? And do you see the
17 reference in the last part of that numbered
18 paragraph three to their Exhibit A, the
19 memorandum?
20 A Yes, I do.
21 Q And have you reviewed that memorandum?
22 A Yes, I have.
23 Q Do you have any comments about what the
24 memorandum relates?

1 A Yes, I do.

2 Q Please go ahead.

3 A As I mentioned earlier, what I believe this
4 memorandum refers to is an agreement that was
5 worked out in August when Mr. Eades and I,
6 along with a couple of PSC Staff
7 representatives, were meeting out in the
8 Lakeview area and trying to decide what can
9 we do about this problem. The offer that we
10 made or suggested that we do, is that we
11 would come out with our crew and meet their
12 crew and try to assist them in determining an
13 appropriate method for them to locate their
14 facilities. The part that I take exception
15 to in this memorandum is that it indicates
16 that LG&E would provide the manpower and
17 equipment to hand dig, which we would, but it
18 also indicates that we would take the
19 responsibility to determine the exact
20 location of Goshen Utility facilities, which
21 we did not agree to do.

22 Q And has--have you, on behalf of LG&E or
23 anybody who works for you, made such
24 representation that LG&E would take

1 responsibility for locating?

2 A No.

3 Q I direct your attention on the same page to
4 paragraph numbered 6(a), take a look at that
5 please?

6 A Uh-huh.

7 Q And do you have any comments regarding 6(a)?

8 A Well, 6(a) refers to Goshen making numerous
9 efforts to obtain cooperation. You know, the
10 thing I take exception to there is that I
11 feel that we have been--pushed this issue at
12 least as much, probably more than Goshen has,
13 as far as trying to cooperate. And we have
14 worked, we believe, in a cooperative spirit
15 with Goshen to try to work this problem out.
16 The exception that I take is the inference
17 that Goshen has made greater strides to try
18 to get this worked out than we have. It
19 mentions that Goshen stands ready, willing,
20 and able to proceed with inspection
21 activities. And as I said earlier, we have
22 stood ready, willing to go out and excavate
23 and determine the location or any potential
24 damage as well. All we are asking is that

1 Goshen fulfill their obligation in telling us
2 where we need to be digging to find their
3 sewer services.

4 Q Will you now turn to the next page, the
5 paragraph 6(e) and I direct your attention to
6 the second sentence in 6(e) please?

7 A Okay.

8 Q Do you have any comments on that sentence in
9 particular?

10 A It says Goshen notes that the parties
11 successfully used the pot hole technique to
12 locate the gas lines, gas line/sewer line
13 intersection for the four instances of sewer
14 line piercing already discovered in the
15 construction area. But I wouldn't say that
16 we were successful in doing that, that we
17 ultimately found the damage and were able to
18 repair the damage. But we had to, basically,
19 dig a number of holes in these yards,
20 basically, by trial and error because we
21 didn't have--we didn't know where to dig in
22 order to find the intersection, because we
23 didn't know where the sewer services were.
24 An example of that is that on one of the four

1 we ultimately found that the sewer service
2 was 85 feet from where Goshen indicated that
3 they believed it was. And, obviously, that
4 one took a long time to determine, to find.

5 Q Do you recall in that specific instance what it
6 took to locate the sewer service?

7 A Our crew, along with the customer, and I
8 believe a Goshen Utility as well, tried to
9 determine where the sewer service was and
10 they dug a number of holes trying to find it.
11 Finally, they were able to go inside the
12 house and run a metallic snake out through
13 the sewer clean out and locate that metallic
14 snake which basically located the sewer
15 service and indicated that it was running in
16 a direction quite different than what Goshen
17 had indicated that it was. So, that pointed
18 them in the direction of the different corner
19 of the lot where we ultimately located the
20 sewer service.

21 Q Okay. Let me direct your attention now to
22 paragraph numbered seven and, specifically,
23 focus your attention on the second to last
24 sentence in paragraph numbered seven, and ask

1 if you have any comments regarding that
2 statement?

3 A The sentence beginning with "Not
4 withstanding?"

5 Q The next sentence, near the--second to last
6 line of paragraph seven?

7 A Oh, I'm sorry, "Goshen has not been
8 successful . . .?"

9 Q Correct?

10 A "Goshen has not been successful in obtaining
11 the cooperation of LG&E." Of course I would
12 take issue with that. I believe we have very
13 much attempted to cooperate in this issue and
14 have indicated all along that we are standing
15 ready and willing to go out and provide the
16 manpower to dig and inspect these services.
17 The issue here is that we need to know where
18 these services are before we have any idea
19 where to dig to locate them. And we believe
20 that that is the responsibility of Goshen
21 Utilities as it is in all other--as the
22 operator, as it is in all other excavating
23 activities.

24 Q And then let me finally direct your attention

1 to the next numbered paragraph, paragraph
2 numbered eight. And if you could take a look
3 at that, the--both on page three and page
4 four and let me know when you are done
5 reviewing that.

6 A Okay.

7 Q Mr Rush, do you agree that directional boring
8 in and of itself is inherently risky?

9 A No, I do not.

10 Q Has the natural gas industry found
11 directional boring in and of itself to be
12 risky?

13 A No, they have not. It is an established
14 technique. I will say that there are
15 different procedures that need to take place
16 prior to using the directional drilling
17 technique, as you would in any change in
18 technique. There are different procedures
19 that need to be followed in order to make it
20 a safe procedure, same as there are
21 procedures that need to be followed in the
22 traditional trenching technique in order to
23 avoid the damage.

24 Q The next sentence, the sentence that starts

1 "The four instances of inadvertent sewer line
2 piercing . . .," up near the top on page
3 four?

4 A Uh-huh.

5 Q I'll take a little bit of liberty, to me, it
6 is saying that those--that piercing
7 illustrates that directional boring has
8 inherent risks, do you agree with that
9 characterization?

10 A No. I think the inherent risk come into
11 play--to me, it illustrates the point about
12 the importance of locating and doing the
13 proper planning and up-front work to make
14 sure that you have located facilities prior
15 to doing the directional drilling. That is
16 the point that it illustrates.

17 Q Given the fact that Mr. Eades, when he came
18 into this company, inherited less than
19 perfect records about the location of
20 facilities, are there methods other than
21 having accurate detailed maps that Goshen or
22 any other sewer utility could use to locate
23 their service lines?

24 A Yes, there are.

1 Q Can you describe those briefly?

2 A Well, one that we ultimately used to locate
3 the sewer service that I mentioned earlier
4 that was 85 foot off the location, is one
5 method. You can run a metallic snake through
6 the sewer service then that allows you to,
7 basically, have a metallic conductor that you
8 can use conventional locating techniques in
9 order to locate that service. So, that is
10 one method that we have suggested. Another
11 method that companies use is to run a camera
12 into either the main or the service. Running
13 it through the main, basically, gives you the
14 location of the taps, where those taps are.
15 Because you run the camera in there, locate
16 where the tap comes off of a main, and then
17 you have got a measurement, basically, from
18 that man hole to here is where the tap is.
19 And it gives you an excellent location of
20 where your sewer line is. If you are able
21 to--sewer services typically are large enough
22 to where, instead of running the metallic
23 tape into the sewer service from the sewer
24 clean out, you could also run a camera down

1 through there and, again, locate exactly
2 where that sewer service is. Another
3 advantage to that is that once you have done
4 that, then you, basically, have established a
5 record of where your facilities are located
6 and you can have that record for future
7 reference when these facilities need to be
8 located.

9 Q Just to describe, for the benefit of the
10 record, the metallic tape method, can you
11 describe what is put in the pipe and then
12 what is done utilizing the metallic tape,
13 what is actually physically done to tell the
14 people on the job where the service is?

15 A Well, the problem here is that these sewer
16 services are non-metallic. And conventional
17 locating equipment is--utilizes a conductor--
18 basically, a metallic line in order--or wire
19 in the case of plastic pipe--in order to get
20 a signal that is transmitted to a locator
21 above ground that indicates the exact
22 location or the--a pretty good location of
23 where that line is so that--

24 Q The device--let me interrupt, the device

1 above the ground can sense where metal is
2 located underground?

3 A Yes.

4 Q Continue, I'm sorry.

5 A The metallic--running the metallic tape down
6 through the sewer service, basically,
7 accomplishes the same function as installing
8 a tracer wire as we do on our plastic
9 pipeline because it, obviously--we install
10 most of our lines using polyethylene now and
11 it is also a non-metallic line. And we
12 install tracer wires along with that line to
13 provide the metallic conductor in order for
14 the conventional locating methods to be used
15 to locate where that gas main is.

16 Q Final question, Mr. Rush, is LG&E ready,
17 willing and able to check every sewer service
18 involved in both of the jobs in Lakeview
19 Subdivision?

20 A Yes, we are.

21 Q And what has to happen though before we can
22 do that?

23 A We need to know where they are.

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MR. BROOKS:

Okay, that's all the questions I have
for Mr. Rush and tender him for cross.

HEARING OFFICER SHAPIRO:

Let's take about five minutes.

(OFF THE RECORD)

CROSS EXAMINATION

BY MR. SAUER:

Q Good morning Mr. Rush. I'm Jeff Sauer, I have
just a few questions to follow up with you to
clarify some of the things that you have testified
to. The first point that I'd like to sharpen up a
bit is your testimony that problems show up
quickly in your experience. Certainly, the four
instances of piercing that occurred showed up quickly.
Let me describe a scenario that is of concern to
us and we are sure of concern to you as well,
and that is where the gas line would not squarely
pierce the sewer line but would only nick it
and nick it in such a way that sewage continued to
pass through for months, maybe for years. And
two years later, three years later, we had a
stoppage, that is the real worry, the hand-wringing

1 that we have been doing. I think that your
2 testimony was accurately put that it is only
3 probably that all the problems would show up right
4 away. So, there is at least a possibility that a
5 problem could show up later. Would you say that
6 that is an inherent risk of directional boring
7 that a problem could show up later?

8 A Well, first of all, we share the same concern
9 and recognize that that is a possibility.
10 And I think I indicated that that is a
11 possibility and a concern that we share. I
12 would say that that is a risk that is
13 involved in any excavating operation that we
14 have found over time where excavators only
15 slightly damage a facility and it doesn't
16 show up until later on, not just in
17 directional drilling but in--also in
18 conventional older techniques.

19 Q You are the expert here and I'm trying to
20 understand. If we did trenching out there I don't
21 think we would be nearly as worried about an
22 accidental nick because we would probably know it
23 when it happened. If you have done directional
24 boring we are mightily concerned that there might

1 be a nick out there, are we off base in our worry
2 that there might be a nick in directional boring
3 whereas in traditional trenching it is not likely
4 to occur?

5 A No. As I said, we share that same concern
6 and we believe that that is the reason why
7 the locating, all these procedures that we
8 have in our directional drilling procedures
9 need to be followed in order to make sure
10 that that doesn't--to insure that that
11 doesn't happen, including the locating of the
12 facilities.

13 Q We may have had the worst case scenario in
14 the Lakeview Subdivision where you pile on
15 all the factors that you wouldn't like to see
16 to use directional boring. In my mind, they
17 are the fact that we have got gravity fed
18 sewers, the fact that the gravity fed sewers
19 are not metallic and they don't have a tracer
20 wire on them, they are just plain plastic so
21 you can't see them, if you will; the fact
22 that the topography in the area, as you know,
23 is quite varied; and the fact that Goshen
24 Utilities field location records are not

1 particularly accurate. Is this an area, in
2 your view, that is susceptible for
3 directional boring, is a good idea to use
4 directional boring when these factors are
5 present?

6 A Yes, I believe that if it is done properly
7 that this area is perfectly applicable.
8 There is one in addition to the things that
9 you mentioned, the factors that you
10 mentioned, another inherent problem there is
11 that, typically, we find sewers located
12 deeper than they are there as well. In
13 Goshen Utilities case we have found that
14 sewer services, primarily mains, are a little
15 shallower or a little less consistent in
16 their depths than you would typically find.

17 Q So, if this area, in your judgement, is
18 perfectly acceptable to use directional
19 boring if it is done properly, tell us how
20 you would do it properly?

21 A The way we would like to see jobs done are
22 the same way that they are being done in
23 every other part of our service territory.
24 And that method involves the operator, the

1 utility going out and locating their services
2 so that our contractor can dig a hole with
3 some degree of confidence and finding,
4 without having to strip out an entire length
5 of a yard in order to find the utility, to
6 insure that the directional drilling does not
7 conflict with the utility.

8 Q So, then, it is the position of LG&E that the
9 burden falls on Goshen Utility to actually
10 locate our existing facilities?

11 A It is the position of LG&E that the
12 Underground Protection Act requires the
13 operator--that it is the intent of the
14 Underground Protection Act for the operator
15 to be responsible for locating their
16 facilities.

17 Q The actual location of their facilities?

18 A The terminology that is used in the Act is
19 "the approximate location of facilities." I
20 don't think it mentions an actual location, I
21 don't have those memorized.

22 Q I think you are correct, it does not use
23 actual location, it uses approximate
24 location. Is it true that in the Lakeview

1 Subdivision you had a choice of construction
2 techniques, you could use directional boring
3 or you could use trenching? Would either of
4 those techniques work?

5 A That's true, we have that choice on all jobs.

6 Q I think you testified that you first started
7 using directional boring in 1996; is that
8 accurate?

9 A We didn't first start using it, but that is
10 when we--that is when it became a standard
11 way of using--we had--our contractors had
12 used that methodology in years--probably,
13 only a couple of years prior to that in
14 limited circumstances before that technology
15 became a prevalent technology. But '96 is
16 when we began using it extensively.

17 Q I don't know if you know this, I live very
18 close to the Lakeview Subdivision, not in
19 Lakeview, but very, very close, and our gas
20 lines were put in by LG&E a couple years ago
21 using trench technology and not directional
22 boring. When did--when was it that LG&E
23 first started widely using directional
24 boring?

1 A In 1996.

2 Q 1996? Okay. And, so, if this project had
3 occurred before 1996, then you simply would
4 have used trench technology?

5 A Probably, yes.

6 Q And it would have cost you a little bit more?

7 A Cost us a little more and cost us on the
8 customer relations side.

9 Q Okay. Let me ask you a few things about
10 directional boring and the kinds of risk that
11 could be attributable to it. And these will
12 be hypotheticals. Suppose you have a
13 subdivision and the only underground existing
14 service is cable TV and you want to use
15 directional boring. What risks are inherent
16 in using directional boring under those
17 circumstances?

18 A Well, again the risk, there would be no risk
19 if the cable was located properly and we were
20 able to dig it up and actually observe the
21 directional drilling going through the hole
22 where the cable is located. I think--well--

23 Q Very little risk because if you happened to
24 hit a cable TV somebody doesn't get to watch

1 Monday night football but it is not that
2 serious, is that right?

3 A That would be significant for me but I don't
4 know about anybody else.

5 Q Suppose we have the same subdivision and
6 there are two underground existing
7 facilities, one is cable TV and the other is
8 telephone. What risks are present in
9 circumstance of using directional boring in
10 that subdivision?

11 A Again, the risks are very small if it is
12 located properly. But I think what you are
13 getting at is the risk is less, is not
14 greatly significant if those particular
15 utilities are damaged then the risk is only
16 that someone won't be able to talk on the
17 phone or watch TV.

18 Q Right, nothing life threatening?

19 A Right.

20 Q How about if we have the same subdivision and
21 we have three underground facilities, we have
22 cable TV, which we could hit and knock
23 somebody off TV for a while, and we have
24 telephone which means that their telephone

1 call might be cut off, and we also have
2 water. Now, what would happen if
3 inadvertently there was a piercing of the
4 water line going into a house, is that--what
5 risk do you view that to be?

6 A Only a risk of losing water service and
7 making a mess in the restoration of that job.

8 Q And yet on the other hand, we have got a risk
9 for gravity fed sewer just because of the
10 nature of it, it is a big round pipe that the
11 gas line can pass through if you accidentally
12 hit one, that would seem to me to be a
13 significantly greater risk of damage to
14 property, injury to person or even death if
15 the worst case scenario happened. Am I
16 thinking about that correctly?

17 A Well, again, the problem is caused just by
18 the piercing of the sewer is not a dangerous
19 situation because it would be the same as the
20 cable, as the water, you may potentially make
21 a mess. The danger is not inherent in that
22 exact operation, the danger is where we
23 talked about earlier is if subsequent it
24 causes that sewer line to be blocked off and

1 someone were to run a rotorooter type of
2 thing through that sewer line and puncture
3 the gas line.

4 Q To our way of thinking, so that we can make
5 sure we are on the same page here, if--if
6 this is the worst case that we hope never
7 happens, but if the worst case did happen
8 where a newly installed gas line just nicked
9 a sewer line and three years passed and then
10 there was a stoppage and the rotorooter went
11 down that sewer line to clear it out and hit
12 the gas line, the gas would flow back into
13 the home, probably out into the sewer and
14 maybe into other homes which could
15 potentially ignite. We could have a
16 catastrophic situation; is that not correct?

17 A That is a possibility, yes.

18 Q If you could look at the attachment to the
19 response of LG&E at number one.

20 MR. BROOKS:

21 Is that the procedures?

22 MR. SAUER:

23 Yes.

24

1 MR. BROOKS:

2 Do you have the procedures with you?

3 A Yes.

4 Q To whom are these procedures addressed? Who
5 do you give them to? Do you give them to the
6 contractor, do you give them to LG&E
7 personnel, who receives these Installation
8 Polyethylene Pipe by Directional Drilling
9 Guidelines?

10 A These procedures are a part of the
11 specifications that we include in any
12 contract that we have with our contractors.
13 For one, so they are given to the contractor,
14 not just one time, but every time we give a
15 contract to the contractor these
16 specifications are included. In addition to
17 that, these procedures are given to our
18 pipeline inspectors who are responsible for
19 inspecting the work of the contractors, they
20 are given to our engineering group and anyone
21 else who would have a need to know, including
22 myself, what our specifications are for
23 contracted work.

24 Q Okay. We have talked about the fact that

1 sometimes in some subdivisions that
2 directional boring is not risk free, but
3 virtually so. You are talking about hitting
4 a cable TV line or telephone line or water
5 line, that is not very risky. And on the
6 other hand, if you are talking about an area
7 that is served by gravity fed sewers in an
8 area that has varied topography and poor
9 field location records, that has some risk.
10 It may be a small risk but the catastrophic
11 example that we just talked about is there.
12 Where in these instructions to your
13 contractors do you talk about those kind of
14 risk factors?

15 A Well, they are the reason those risks were
16 recognized by the industry and they are the
17 reason that these procedures are written.
18 The predrilling operations, for example, the
19 purpose of those predrilling operations is to
20 insure that that doesn't happen or to
21 mitigate the chances of anything like that
22 happening.

23 Q But I don't see anything in here about
24 gravity fed sewer. I mean, that would seem

1 to me to be a pretty important thing to talk
2 about, that is where the real risk is.

3 A It is here. I can reference several. 6.1.5
4 mentions that they will locate and mark all
5 sewer lines and laterals, 6.1.7 specifically
6 references sanitary and storm sewers, other
7 drainage systems. Throughout here we
8 specifically--6.2.3, test holes shall be used
9 to observe the drill head as it passes by
10 exposed sewer laterals and other
11 substructures. Throughout here we reference
12 sewer lines in our procedures as a particular
13 risk.

14 Q I guess when I read through that I just
15 didn't pick up on any of that identifying a
16 particular risk for somebody to be aware of,
17 to deal with. And I guess my next question
18 to you is how did it happen that we hit three
19 of them in the Goshen Utilities service area,
20 hit four of them? Hit three in the original
21 construction area and then the fourth one in
22 the second, how did that happen in your
23 judgement?

24 A Well, we do, you know, we mention sewer in

1 here for a reason, because we recognize that
2 the risks are greater with the sewer line
3 than they are with cable TV line. The reason
4 that they were hit in those circumstances is
5 because when we were doing the directional
6 drilling we were using locations provided by
7 Goshen Utilities to determine where those
8 lines were. We were digging holes
9 significantly wider than we normally would
10 where we had greater confidence in the
11 location of facilities. Typically, we
12 believe that the sewer lines are going to be
13 deeper than wherever we install gas lines and
14 had some confidence that the location of
15 those sewer lines were at least somewhat
16 accurate. And the reason they were hit is
17 that the operations that we used in our
18 predrilling operations weren't successful
19 because the lines weren't located to any
20 degree of accuracy.

21 Q Is there any lesson that Goshen Utilities
22 should take from this, and LG&E should take
23 from this, from the fact that we hit four?

24 A Yes.

1 Q And what would that be?

2 A Well, I believe the lesson learned here is
3 that it is very important that we go to the
4 degree, every degree possible, in order to
5 locate as accurately as possible the
6 utilities to make sure that we avoid these
7 kinds of damages. And for us, subsequently,
8 once they have been--the methods have been
9 used to accurately as possible to locate
10 those services, then for our contractors or
11 us to take care in digging those out and
12 making sure that these type of things don't
13 happen.

14 Q Do you think that for future construction in
15 this area that it will be necessary to
16 positively identify the intersection of the
17 gas line and the sewer line to make sure that
18 there hasn't been an inadvertent hit or nick?
19 In other words, to actually dig it up and
20 see?

21 A I believe that that should take place, yes.

22 Q We do too. Do you think that the cost of
23 actually digging up and physically locating
24 that intersection is going to mean that the

1 total cost of directional boring is going to
2 be pretty darn close to the cost of
3 trenching? Are we saving any money here in a
4 subdivision like this where we have to go
5 through all this extra cost and effort to
6 positively identify the intersection, is
7 directional boring really saving any money
8 over trenching?

9 A Yes, it is. I believe the example we gave
10 earlier where it cost us \$9,000.00 more on
11 this same job in order to do the trenching
12 because of the extra restoration. Our
13 contractors have included in their bill for
14 directional drilling to make those--to dig
15 those holes to positively inspect and
16 identify the sewer services. So, that is
17 included in the price for directional
18 drilling. So, again, we are going to require
19 our contractors to do that. But in order
20 for--to, in good conscience, us make them do
21 that, we can't require them to dig up an
22 entire yard in order to find that
23 intersection. We need Goshen Utilities or
24 any of the operators to do the best job they

1 can to locate those services and fulfill
2 their part of the obligation so that our
3 contractor can dig small holes, not dig a
4 large number of holes in customers yards in
5 order to locate that intersection.

6 Q We are committed, Goshen Utilities is
7 committed to that cooperation. We recognize
8 our field records are not that accurate but
9 they are available and have brought them out,
10 as you probably know, and spread them on the
11 hook of a truck to try to figure out what it
12 is what. Robert Huffman is our supervisor
13 that has the most experience and he is
14 available to do these inspections as well.
15 On the 85 foot variance where you--the
16 original hole and the subsequent hole was
17 that far away, that occurred on a Sunday
18 afternoon, and since I live out in that area
19 I was physically there and observed that
20 ordeal. We dug three holes to finally find
21 where it was located. I'd like to turn next
22 to the--what to do about the 31 potentially
23 affected homeowners that are out there now.
24 I guess first, do you agree that there are

1 approximately 31 residences in the Lakeview
2 Subdivision that need to have some attention
3 paid to them to be sure that there isn't an
4 inadvertent nick?

5 A Yes, I agree with that.

6 Q Do you agree that the way to do that is to
7 dig up and physically inspect that
8 intersection?

9 A I believe that is the best way to do it, yes.

10 Q Is LG&E prepared to--I mean, we are prepared
11 to show up Monday morning, that may be too
12 soon for a larger entity, are you--is LG&E
13 prepared to start inspections next week?

14 A Yes.

15 Q Is LG&E prepared to bring a backhoe?

16 A Yes.

17 Q May Lloyd Eades call you after this hearing
18 and set an exact time next week that LG&E
19 will show up and Goshen Utilities will show
20 up and to commence inspections?

21 A Yes. Again, we would ask that Goshen
22 Utilities takes whatever measures are
23 necessary to accurately locate those lines
24 prior to us doing that so that we don't have

1 to dig a number of--strip out an entire yard
2 in order to find that. That's all we are
3 asking, but we are prepared to dig it up and
4 locate those with the appropriate measures
5 taken to locate the sewer service.

6 Q Great. Let me describe what we think our
7 obligation is and tell me if you disagree in
8 what we are prepared to do. Goshen Utilities
9 is prepared to show up any time next week as
10 soon as you guys are ready. If Monday is
11 workable for you, we will be there Monday,
12 any day after Monday is fine too, we'd just
13 say the sooner the better. We will have with
14 us our field location records for that area.
15 I think you may have seen those already. We
16 will bring Robert Huffman, who is the most
17 senior individual and has the most personal
18 knowledge of the area, is the best spotter,
19 able to provide the most guidance. Robert
20 has some equipment that can help locate hard
21 to find pipes. In fact, that 85 foot
22 variance area Robert was able to locate that
23 by going into the house and running a metal
24 tracer wire in it. If we show up with those

1 individuals with those records, is LG&E
2 satisfied to go forward on that basis with
3 their backhoe?

4 A Well, our preference would be that Goshen
5 Utilities, because it--we recognize it is
6 going to be a more significant effort than
7 what has happened in the past in order to try
8 to come up with an accurate location of the
9 records. By the way, Mr. Huffman has been
10 very--our folks like working Mr. Huffman, he
11 is very cooperative, very helpful. We would
12 --our preference would be that Goshen would
13 go beyond what they have done in the past to
14 locate those services and employ some of the
15 methods that we mentioned earlier so that we
16 don't wind up going out there and spending a
17 lot of time, more time than needs to be
18 spent. So, our preference would be that
19 Goshen would do the preparatory work to
20 accurately locate those services prior to us
21 coming out there and doing the excavation.
22 But just as soon as that takes place we are
23 ready and willing to come out and make the
24 excavations.

1 Q Now, I'm not sure from your testimony now if
2 you are willing to show up next week with a
3 backhoe and roll up your sleeves and get to
4 work or not?

5 A Yes.

6 Q You are?

7 A Yes.

8 Q We will commit to being there, we will be
9 there next week and--

10 MR. BROOKS:

11 Well, I'm going to interpose an
12 objection. I don't think this is the
13 appropriate forum to reach some kind of
14 agreement or extract a business
15 commitment. We will certainly be glad
16 to talk in some detail about this
17 situation and what can be accomplished
18 next week. And if we can do something
19 we will do that. But I'll object to
20 the--the form of the line of
21 questioning.

22 HEARING OFFICER SHAPIRO:

23 I'm going to sustain the objection. I
24 think the witness can testify as to what

1 methods he would recommend to address
2 the problem, but I don't know at this
3 point whether he can commit to what will
4 actually be done in order to address the
5 problem. But I think you can ask him
6 about what does he recommend, how would
7 he recommend remedying the situation
8 that is out there now.

9 Q How would you recommend solving the situation
10 that is out there now?

11 A I would recommend that Goshen Utilities
12 personnel use one of the methods that I--I
13 don't want to tell Goshen how to do their
14 job, again, all I'm doing is I'm aware of
15 some techniques that can be used for this
16 type of situation because other utilities
17 have employed them. I would recommend they
18 use one of the--either the running--accessing
19 the customer's property to run a snake out
20 through and then staking out the line,
21 marking the line however they choose to do
22 that, to provide an accurate location.
23 Either that or using--there are a number of
24 contractors who will--you can hire to use the

1 camera technique to visually inspect and
2 locate gas mains and services or the cameras
3 are commercially available to purchase. So,
4 I would recommend that Goshen Utilities use
5 one of those two methods to accurately--more
6 accurately locate the location of their
7 services so that we can come out and have
8 confidence that wherever we dig a hole we
9 will find a sewer service.

10 Q Do you agree that the responsibility for
11 locating underground facilities is subject
12 to--the subject of the Underground Facilities
13 Damage Protection Act?

14 A Yes.

15 Q Do you think that that Act is controlling on
16 responsibility for location?

17 MR. BROOKS:

18 I'm going to object if he is asking for
19 a legal conclusion from this witness.
20 To the extent, from his field
21 experience, he can--

22 HEARING OFFICER SHAPIRO:

23 Yeah, from his field experience he can
24 answer it, but--what his understanding

1 of their responsibility is. I recognize
2 that what--whose obligation is what
3 under that Act is a matter of--to be
4 decided by an appropriate forum.

5 A Would you rephrase the question?

6 Q Do you agree that the Underground Facilities
7 Damage Protection Act is determinate of the
8 parties responsibility for locating existing
9 facilities?

10 A Yes, I do.

11 Q Is it your understanding that that Act
12 provides that Goshen must inform the
13 excavator, that would be you in this
14 circumstance, of the approximate location of
15 its existing underground facilities?

16 A Yes.

17 Q Do you agree that the statute--is it your
18 understanding that that statute would--means
19 with respect to approximate location for non-
20 metallic facilities without a tracer wire
21 that Goshen must locate its underground
22 facilities as accurately as possible from
23 field location records?

24 A That's what the statute says.

1 Q That is your understanding?

2 A My understanding of what the statute says. I
3 would add that I believe that it is the
4 intent, it is clearly the intent of that
5 statute that it is the responsibility of the
6 operator to locate that service. And I
7 believe it is the intent of that statute,
8 again, that is my opinion and it is not
9 specifically written in the statute. It is
10 my opinion that it is the responsibility of
11 the operator to use means to take
12 responsibility for locating that facility to
13 the best of their abilities. I believe that
14 intent is clear.

15 MR. SAUER:

16 That's all the questions that Goshen has
17 for this witness.

18 HEARING OFFICER SHAPIRO:

19 Before I turn you over to Mr. Wuetcher, let me
20 just ask you something, clarify something on my--I
21 believe you testi--I believe it was your testimony
22 near the end with respect to the responsibilities
23 or the functions that would be performed by both
24 parties here, it was your recommendation, and

1 correct me if I'm wrong, that you were--it was
2 your recommendation that Goshen would first locate
3 the underground facilities, underground sewer
4 facilities, and that it was your proposal, let me
5 say, your proposal was that Goshen would first
6 locate the underground facilities using any method
7 that they could do so, but two that you
8 recommended, either running a wire through or a
9 snake through the system or a camera. And that
10 after they located the facilities sufficiently for
11 you to identify where they were under the ground,
12 then LG&E would then excavate to determine where
13 the problems were as far as any connection of the
14 two lines; is that right?

15 A That's correct. That's the methods that we
16 typically would expect.

17 HEARING OFFICER SHAPIRO:

18 I mean, that is the method that you are proposing?

19 A Yes. And that is the method that we
20 typically use on jobs like this. And I might
21 add in addition to that we would, of course,
22 want Goshen Utilities representative to be
23 there with us when we are doing the
24 excavation.

1 HEARING OFFICER SHAPIRO:

2 Well, I understand that. I was just trying to get
3 an overall view of what you were saying. Okay, go
4 ahead.

5 MR. WUETCHER:

6 Thank you, Your Honor.
7

8 CROSS EXAMINATION

9 BY MR. WUETCHER:

10 Q Good morning Mr. Rush.

11 A Good morning.

12 Q Can I go back to LG&E Exhibit 1, I'd like to
13 try to get a better idea of what parts were
14 involved in the first phase of that
15 subdivision main extension and which parts
16 were involved in the second phase, so I--

17 A The Exhibit 1 is only the first phase.

18 Q Okay.

19 A We did not have an exhibit showing the second
20 phase, so this is the 4,300 foot affecting 56
21 customers that I referred to earlier.

22 Q Okay. Very good. So, let me ask, the next
23 question I have concerns--you have 56
24 customers and I believe you stated in

1 response to a question from Mr. Sauer about
2 there were 31 potentially affected residence,
3 nine of which were in the subsequent
4 expansion or subsequent extension which is
5 not reflected in Exhibit 1; is that right?

6 A Correct.

7 Q Okay. For the 22--I want to make sure I can
8 get to the 22--although there were 56
9 customers, I assume that a number of
10 customers were automatically eliminated
11 because the main extension was on--was not on
12 their side of the street; is that correct?

13 A Either that or we eliminated the other
14 customers because Goshen's mains run either
15 on the other side of the street or even
16 behind houses or in a totally different area
17 than where the gas main was run. So, that is
18 correct.

19 Q Okay. Is it possible for you to identify
20 which of these are locations that are on this
21 map are the ones that have got the services
22 in question?

23 A Since I'm not familiar with Goshen's
24 facilities, perhaps Mr. Eades could identify

1 better than I.
2 Q Okay. Well, so your--is--could someone else
3 at LG&E identi--I guess what we are looking
4 at right now if you could identify the ones
5 that either have been eliminated because they
6 had damaged sewer service lines and those
7 were repaired or that you have eliminated
8 from--in some other way, or LG&E can supply
9 an exhibit that would show that.

10 MR. BROOKS:

11 Mr. Wuetcher, what you are asking for is
12 the map we left at home. It is the
13 great big map that we actually had out
14 on the job and I believe somebody from
15 Goshen had marked on there where lines
16 were. Anyway, the specific lots
17 involved, I believe, and my people can
18 correct me if I'm wrong, are identified
19 on that map.

20 MR. WUETCHER:

21 Okay. If you could supply an easily
22 replicable copy of that or give us a
23 listing based on the numbers that you
24 have got on Exhibit 1 so that we can go

1 ahead and--

2 MR. BROOKS:

3 Yes, if we can reproduce that one
4 legibly we will do so, if not we will
5 give a list of the addresses that are
6 legible on the second and third page of
7 Exhibit 1.

8 MR. WUETCHER:

9 Okay, and that would be acceptable.

10 HEARING OFFICER SHAPIRO:

11 Wait a minute.

12 MR. BROOKS:

13 We do have a list of names and addresses
14 supplied to us by Goshen that we--that
15 they advised us we should send our
16 letters to these people and we are
17 assuming from that that those are the
18 affected ones. If perhaps immediately
19 after the hearing we will go through and
20 count and compare and if that is correct
21 we can submit that as a late filed
22 exhibit.

23 HEARING OFFICER SHAPIRO:

24 Why don't we do it over lunch?

1 MR. BROOKS:

2 Fine.

3 MR. WUETCHER:

4 I was hoping we would avoid having to do
5 anything over lunch, that the hearing
6 would be concluded before lunch.

7 A To clarify, if I may, Mr. Wuetcher, the 22 were
8 not just identified by LG&E. That was LG&E
9 working with Goshen Utilities to agree upon which
10 ones could be potentially affected. And I think
11 also on the last page of that, and help me Lloyd
12 if I'm wrong, but on the last page I think it does
13 show the sewer line in more detailed drawing.

14 HEARING OFFICER SHAPIRO:

15 Wait a minute. You just answer
16 questions and we will take some breaks
17 and we may be able to resolve some of
18 this during a break or during lunch or
19 what have you. But we don't need--it
20 would really confuse the record if you
21 all have some cross conversation during
22 the course of the proceeding.

23 MR. WUETCHER:

24 Our purpose in requesting that is simply

1 to make sure that we understand--I
2 assume the parties are in agreement on
3 the number of customers and who those
4 customers are that are potentially
5 affected or that remain to be inspected
6 and that is what we are looking for,
7 simply the addresses and a specific
8 number.

9 Q On the other nine, were those nine customers
10 the ones that directional drilling was used
11 on the first full day of drilling for the
12 second project?

13 A That's correct.

14 Q So, those are all those--everyone that was
15 done on the first day the drilling was done
16 for the second project?

17 A I believe there is a little bit of drilling
18 on the second day, it was the second day, I'm
19 not--I don't have all of these facts
20 committed to memory,--

21 Q Okay.

22 A --but I believe there was one full day of
23 drilling and early on the second day there
24 was a small amount of drilling that was done.

1 So, the nine were from that first day and
2 early in the second.

3 Q Okay. If you could--those would be part of
4 the 31 that are listed. If you could
5 identify the--also, of that list of 31, the
6 nine that are on the second phase extension.

7 MR. BROOKS:

8 We will provide those.

9 Q During the first phase, in addition to any of
10 the three sewer line intersections or
11 piercings, were there any problems or any
12 disruptions of the--any other services,
13 cable, telephone?

14 A I believe it was four sewers, right, that
15 we--

16 Q Was it four sewers?

17 A I think we--there was four sewers that--

18 Q I assumed the fourth one was on the second
19 project. There were four sewers on the
20 first--four sewer innerpiercing on the first
21 project?

22 A Specifically, one of the four, it seems to be
23 either three or four, but one of the four was a
24 branch service, to my understanding. So, that the

1 serve itself affected two customers, but it was
2 only one service that was damaged, I believe, is
3 my understanding. But we believe it is four on
4 the first job that were damaged and one on the
5 second job.

6 Q Okay. Can you provide us with a list of the
7 three or four customers whose services were
8 pierced and the addresses also?

9 MR. BROOKS:

10 The ones that were--that complained and
11 have the services fixed? We will
12 provide that.

13 Q You stated in your testimony that one service
14 line was pierced or broken during the second
15 phase. Was that as a result of the
16 directional boring or the result of using the
17 trenching technique?

18 A That was a result of the directional boring.

19 Q I apologize, I can't recall now, on the first
20 phase of the project were there any services,
21 telephone, water, cable TV services that were
22 either pierced or disrupted as a result of
23 the directional boring?

24 A I'm afraid I can't answer that question. We

1 can go back and get you that answer, but I
2 don't know that personally.

3 Q If you could supply us with that?

4 MR. BROOKS:

5 Yes, we will supply that.

6 Q You had stated that as a result of having to
7 return to the trenching techniques on the
8 first project, LG&E incurred additional cost
9 of approximately \$9,000; is that correct?

10 A Yes.

11 Q Has any action been taken to recover that
12 \$9,000 from Goshen?

13 A No.

14 Q At this time does LG&E contemplate any action
15 against Goshen to recover that amount, to the
16 best of your knowledge?

17 A No, we have not discussed that.

18 Q What other sewer utilities operate within the
19 eastern territory that you supervise over?

20 A Metropolitan Sewer District is the largest,
21 the main Louisville Sewer District, and I'm
22 sorry, Mr. Wuetcher, I don't know, there are
23 other municipalities that operate out there
24 and I don't--

1 Q All right. Well, let me kind of narrow it
2 then. Are there any other sewer utilities
3 within that area that are privately owned
4 sewer utilities, that are not municipally
5 owned or part of the MSD umbrella?

6 A I believe that there are but, again, that is not
7 something that I'm intimately--have intimate
8 knowledge of.

9 Q It is somewhat unclear of the 22 services
10 that are--that may be potential problems
11 within the first project, what--aside from
12 the notice that was given by LG&E, what other
13 efforts have been taken to inspect where the
14 gas main and service lines, sewer service
15 lines would intersect?

16 A The other effort, of course, giving the
17 notice to the customer because, again, the
18 inherent dangers if someone should ever run
19 the rotorooter down through there that is the
20 danger. And, so, Goshen, as well as LG&E,
21 notified each of those customers if they ever
22 have any problem to make sure they notify one
23 or both of us. In addition to that, we
24 mentioned that we had hoped, we made--we

1 agreed with Mr. Eades to have our crews come
2 out and try to assist them in coming up with
3 a methodology to locate those sewer services
4 so that we could inspect those services.
5 That effort lasted a full day and, again,
6 they were unsuccessful in getting a location
7 of those services. So, we have not dug any
8 more inspection holes for the reason that we
9 don't know where to dig.

10 Q Okay. Step back from there, there has been
11 one day of effort on the part of Goshen and
12 LG&E to inspect these lines and you are
13 saying on that day there were some holes dug?

14 A There were no holes dug on that day. A
15 couple of things were done on that day, our
16 crew also tried to--got the depth of the gas
17 line as well as the sewer lines where we
18 could to try to narrow down further where
19 there may be potential, even narrow the 22
20 down further if, for example, we typically
21 expect the sewer line to be significantly
22 deeper than where we lay our gas lines. And
23 we took depth readings of the gas lines where
24 in the yards where the Goshen told us they

1 believed the services were and determined
2 that in the majority of those there shouldn't
3 be any concern as well because of the depth
4 differences of where we believed the sewer is
5 and where the gas line is. But there weren't
6 any more holes dug because, again, we were
7 unsuccessful in determining a location to
8 dig.

9 Q Now, let me step back to that point because
10 that is also mentioned in the LG&E's
11 response. Exactly how--you said the majority
12 but can you give us an actual number that
13 using this method of measuring the depth of
14 the gas main and looking at the sewer
15 manholes that you were able to determine--how
16 many were you able to eliminate, at least in
17 your alls mind, as to the existence of a
18 problem by using this method?

19 A I can't give you that number. I wasn't there
20 personally but in discussion with the crew
21 that was there, all they indicated to me that
22 the majority of the services out there--most
23 of the services out there were--the
24 difference in elevation was such that they

1 don't believe that there is much of a
2 chance but--

3 Q Were these measurements recorded or do you
4 have a written report on this that identify?

5 A The measurements were recorded on a drawing.

6 Q Okay. So, could you provide it to us?

7 A I have that drawing with us as well.

8 Q That can be provided to the Commission?

9 A Yes.

10 Q If that could be provided plus you can list
11 or indicate on that list that you are
12 providing us already which of those houses or
13 residences that you believe, or that LG&E
14 believes can be eliminated as a result of
15 this depth difference.

16 A Okay.

17 Q Let me ask, based on this difference in
18 depth, does LG&E believe that that is an
19 accurate measurement or an accurate within a
20 reasonable certainty that that shows that
21 there is no piercing of the sewer service
22 lines by the gas main installation?

23 A The depth readings that were taken on the
24 sewer line and this is a--the technology to

1 identify depth of lines is not as accurate as
2 the technology that is used to identify a
3 vertical location of a sewer line. So, I
4 don't know what the specifications of that
5 equipment are as far as plus or minus, but
6 it--all I can say is that the technology to
7 determine depth is not as good as the
8 technology to determine vertical locations.

9 Q Well, let's put it this way, if you were one
10 of the owners of the residence that were--one
11 of the affected residents, would you feel
12 comfortable using the depth measurement in
13 order to eliminate your residence as a
14 potential problem?

15 A It would depend on how much difference that
16 reading gave. If the difference was two
17 foot, yes, I'd be very comfortable, if the
18 difference was one inch then I would not be
19 comfortable.

20 Q What criteria did you all use, did LG&E use
21 to eliminate those--how much of a difference
22 in depth was used to say that this house is
23 not going to pose a problem?

24 A Again, I'm going by what my crew indicated to

1 me. And I'm not certain what criteria they
2 used in order to determine that.

3 Q Could that also be provided in a follow-up
4 response, just the criteria that was used to
5 determine that a house--whatever the depth
6 was or the difference in depth that was used
7 to determine that a house would not--would be
8 out of danger, for lack of a better term, and
9 I use that only, don't use that to say
10 anything other than give an indication.

11 MR. BROOKS:

12 Yes, we can provide that.

13 Q Under normal circumstances when a line is marked
14 by the, I guess by the operator, for LG&E's
15 contractors, does that location or marker give the
16 contractor a vertical location, how far down the
17 other facility is located?

18 A No. Typically it does not give a depth.

19 Q How has that been determined?

20 A The normal methodology that is used, and I
21 can speak for our construction techniques on
22 directional drilling, is that the contractor,
23 once they have a location, will use--where
24 they have pretty good confidence that the

1 location is accurate, they will try to dig
2 the smallest hole that they can dig, using a
3 posthole digger. The pot hole technique that
4 we have referred to in here means using a
5 posthole digger not, you know, the same thing
6 you would use to build a fence, and to dig
7 down to a depth below where the gas line is
8 going to be positioned so that you can watch
9 the gas line go through the hole and verify
10 that it is not hitting anything.

11 Q Uh-huh.

12 A Did that answer your question?

13 Q I'm not sure it does, let me find out. Under
14 your aalls, LG&E's standard operating
15 procedures, what is normally the allowable
16 distance or the minimum distance between, for
17 example, your gas main, your gas line and
18 another utility service?

19 A How much clearance do we like to have between
20 ours and--a foot is what we typically would
21 use.

22 Q Okay.

23 A I would add the foot is, I think, I don't
24 believe there is any DOT code that says

1 separation, but we like to have enough room
2 where possible so that if we do need to
3 maintain that line that other utilities don't
4 get in the way.

5 Q Is the 12-inch rule strictly enforced? In
6 other words, your contractors are told not to
7 go if the depth is--to not have any depth
8 less than 12 inches?

9 A No. There is judgement that is exercised on
10 the job. And, again, the reason for the
11 separation is to try to make sure that we are
12 able to work on a line should we need to, and
13 there is judgement used in the field by the
14 inspectors and the contractors where--
15 sometimes that clearance just isn't practical
16 to get.

17 Q Is the same clearance requirements--are the
18 clearance requirements the same both for
19 directional boring or directional drilling
20 and where a trenching technique is used?

21 A Well, again, that is a guideline and we
22 haven't specifically identified that there is
23 any difference between clearance requirements
24 between the two. But, again, judgment is

1 used in the field to determine is that okay
2 or not based on the circumstances used. And
3 there are number of circumstances where that
4 amount of cover, due to the location of
5 utilities, the location of other
6 substructures, where we would allow it to be
7 much less than that.

8 Q You say it is judgement, is the judgement
9 call made by the contractor or is it made by
10 LG&E personnel?

11 A The judgement is made in conjunction, our
12 contractor with consultation of our LG&E
13 inspector.

14 Q So, any time it goes less, when the clearance
15 is less than 12 inches the contractor will
16 normally advise LG&E that there is a minimum
17 clearance less than 12 inches and give his
18 opinion or his professional judgement and
19 LG&E will--or consult with LG&E over it.

20 A We would expect, we have a pretty good
21 working relationship with our contractors.
22 We expect them to bring anything of any
23 concern to the contract to the inspector for
24 them to look at together to determine whether

1 it is okay or not.

2 Q How does LG&E insure compliance of its contractors
3 with both its directional drilling procedures and
4 with its other contract requirements?

5 A Well, again, these specifications are included
6 with the contract that a contractor signs, so a
7 contractor is agreeing to these terms and
8 conditions before he does the job. Then we also
9 have inspectors who are assigned to those jobs and
10 one of their main purposes is to make sure that
11 the contractor complies with the spirit and intent
12 of those specifications.

13 Q Is the inspector on site at all times?

14 A Not at all times, because sometimes they may
15 have more than one job. On a job of any
16 significance they are going to be on the job
17 a large portion of the time.

18 Q Okay.

19 A But to say that they will be there, you know,
20 every hour, every minute that the contractor is
21 working is not--would not be a true statement. We
22 do expect good communication between the
23 contractor and the inspector so that they know
24 that there is a critical operation that is going

1 to be done that they will--they know what is
2 important and what is not important to observe.
3 And we expect that communication to happen between
4 the contractors so that they are not out there
5 doing an operation at a time when the inspector
6 isn't there that we would want the inspector to
7 observe.

8 Q During the first couple of days of the second
9 phase, was there an inspector on site when
10 the directional boring began?

11 A Yes.

12 Q I take it then the communication miscue that
13 resulted was also internal that the inspector
14 wasn't advised that the directional boring was
15 perhaps not appropriate in this instance?

16 A Yes, the miscommunication, you know, what I
17 would have preferred to have happened as that
18 job began is that the inspector communicate
19 up the line that that is what the contractor
20 is about to use here, is this okay, and that
21 communication didn't take place.

22 Q Are there any--

23 A Until the second day of the job.

24 Q I'm sorry. Are there any areas within LG&E's

1 service territory where LG&E has declared to
2 be off limits any type of use of directional
3 boring?

4 A No. We don't use it in areas--we don't use
5 it in areas, new subdivisions, for example,
6 because the advantages--there are no
7 advantages. In fact, in a new subdivision
8 where restoration isn't an issue it is less
9 expensive to use the trenching technique.

10 Q In your experience, as far as the
11 installation of sewer service lines, is it
12 now an industry standard for sewer utilities
13 or for plumbers when installing a sewer
14 service line to use some type of tracer wire?

15 A I'm not sure, I'm not familiar with the sewer
16 business.

17 Q Okay.

18 A I would expect it would be but, again, I
19 don't know.

20 Q You mentioned some other methods in which to
21 locate the sewer service line. Specifically, you
22 mentioned two, the use of a metallic snake and the
23 other using some type of camera device. How
24 expensive is it to use the metallic snake method?

1 A The metallic snake would be not very much expense
2 at all because the technology--there is no new
3 technology there it is just a metal snake that can
4 be used for other reasons. But there is man
5 power, the expense is in labor and also the
6 difficulty is that you do have to access the
7 customer--inside the customer's house at a time
8 when a customer can let you in. So, as far as
9 equipment that is needed to do that, the expense
10 is minimal.

11 Q Are you saying that for these 31 homes all
12 that would really be necessary is for
13 somebody to knock on the door, assuming that
14 the owner of the residence, the occupants of
15 the residence is there to let the
16 representatives in, they go down and put the
17 snake in, somebody on the outside using the
18 detection device then goes through and maps
19 out where it is?

20 A That is basically it. The problem is not too
21 many people are home these days during normal
22 working hours. It may require some after
23 hours work, and they have, when Goshen and
24 our crew met out there they found some

1 difficulties where, for whatever reason,
2 there wasn't a clean out. I would have
3 thought that was a code requirement, but they
4 couldn't find a clean out or the sewer line
5 ran in a configuration out the back and made
6 a couple of bends that would have made that
7 project a little more difficult than you
8 describe. But it is still--depending on the
9 limitations of the snake to be able to
10 negotiate a 90 degree bend. That particular
11 service may require a little more such as
12 even excavating where the bends are so that
13 you can have a straight run to run this
14 metallic line out. So, that in a situation
15 where it is not just a straight run there is
16 a sewer clean out there and it is readily
17 available and you can run it straight out
18 there that is a relatively simple case. In a
19 case where it is not that would involve more
20 time and effort.

21 Q Okay. Going back again with the efforts of
22 the first phase of the gas main expansion,
23 how many homes, if you know, how many homes
24 were actually visited, an attempt was made to

1 go ahead and get permission to access the
2 home?

3 A I don't know the answer to that, I can find
4 out, but I don't know the answer.

5 HEARING OFFICER SHAPIRO:

6 While they are talking I'm just curious
7 to know--you are trying to detect
8 something using a metal, some sort of
9 metal conductor, is there any means that
10 you are aware of where they can use a--
11 they can flush something through the
12 water line, something that you put in
13 water that is soluble to where they can
14 do that?

15 A I've not heard of that. The way the
16 conventional locating technologies need
17 something metallic that, you know, the
18 locators transmitting a signal and receiving
19 a signal that is reflected by the conductor.
20 I'm not aware of anything that has been done
21 along those lines so I guess I don't know the
22 answer to that. It seems possible that that
23 could be a method, I know I've heard of
24 putting things in sewers or water lines, some

1 type of tracer material, and I expect there
2 is some kind of tracer material in there that
3 could even emit that you could reflect a
4 signal off of. But I don't know that it
5 would be preferable to--if you could get the
6 metallic thing through there, except where
7 you couldn't access the--

8 HEARING OFFICER SHAPIRO:

9 Where you couldn't access it.

10 MR. WUETCHER:

11 I just have a couple more questions.

12 Q Going back again to the first phase main
13 extension. Were the other utilities, were
14 they all marked?

15 A Apparently, I wasn't aware of any problems we
16 had with any other utilities.

17 Q Do you know with their location how
18 approximate or how close their markings were
19 to being correct to the actual location?

20 A Again, not being on the job I can't say.

21 Q You don't know.

22 A I wasn't--you know, our inspectors and the
23 contractors have their expectations and there is
24 a--the Act refers to an 18-inch either side of a

1 structure for metallic services. That is still a
2 pretty large hole that is given in order to dig
3 out. There is quite a bit of leeway given even in
4 with metallic service, so I can't say how close
5 they are but, you know, through experience this is
6 something they do every day. They have
7 expectations and they know about how far they
8 typically are off.

9 MR. WUETCHER:

10 That's all we have. Thank you.

11 HEARING OFFICER SHAPIRO:

12 Any redirect?

13 MR. BROOKS:

14 Just real brief.

15
16 REDIRECT EXAMINATION

17 BY MR. BROOKS:

18 Q Mr. Rush, do you believe that there is any
19 significant risk in the directional drilling
20 technique if all existing underground facilities
21 are adequately located?

22 A No, I do not.

23 Q And is that what LG&E experiences typically
24 in its day to day activities when installing

1 or replacing mains?

2 A Yes, as evidenced by the miles of pipeline
3 that we have put in using this technique and
4 we have not had significant trouble.

5 Q And do you recall the cross-examination from
6 Mr. Sauer regarding what language is in the
7 Underground Facilities Damage Prevention Act
8 that he asked you if the term approximate
9 location was in there, and you agreed with
10 him that it was?

11 A Yes.

12 Q Now, in your opinion, as an engineer, and in your
13 opinion as the person ultimately responsible for
14 main installation procedures in the eastern part
15 of our territory, do you believe that Goshen has
16 provided LG&E with the approximate location of its
17 service lines on the two Lakeview jobs?

18 A Not--I don't believe--of course, they have
19 given an approximate location. They have
20 given basically a guess, it is somewhere in
21 the yard here. And I don't believe that that
22 was the Act's intent. I believe the Act's
23 intent was for the operator to give--to use
24 the best of their ability through techniques

1 that are available to give the best location
2 they can give. And I don't believe that
3 Goshen is doing that.

4 Q The provisions of the Act aside, just in your
5 experience in the gas utility industry, do
6 you believe that it is a reasonable utility
7 practice of a utility to refuse to locate
8 their underground facilities specifically in
9 the manner that Goshen has in the case at
10 hand?

11 A Absolutely not.

12 MR. BROOKS:

13 I have no further questions.

14 MR. SAUER:

15 Just a couple of follow up questions.

16

17 RE CROSS EXAMINATION

18 BY MR. SAUER:

19 Q Mr. Rush, you just said that you thought the
20 directional boring was safe if the underground
21 utilities were adequately located. What do you
22 mean by adequately located?

23 A Well, again, our experience is that
24 adequately located what we are used to is

1 something within a range. Now, whether that
2 range is 18 inches outside of the pipe as the
3 Act specifically says, or 24 inches, we--you
4 know, adequately located means that using--to
5 me, means that you are using methods
6 available to get as accurate as you possibly
7 can. And I would think--and that is in
8 everyone's best interest in order to try to
9 prevent the damage to that system. So, as
10 accurately as you possibly can get.

11 Q Do you think that adequately locating means
12 or depends on the kind of underground
13 utilities that are present? In other words,
14 if the only underground facility is present
15 is a cable TV would you have a different
16 standard of care than if the underground
17 facility was a gravity fed sewer?

18 A I'm not sure I understand your question.

19 Q You attempted to describe what adequately
20 located means for purposes of directional
21 boring, when it would be safe to use. In
22 adequately locating underground facilities,
23 does it make a difference what kind of
24 underground facilities you are talking about,

1 cable TV versus--

2 A I think that depends on--it depends on the
3 ability to locate that facility. For
4 example, with cable TV it is a simple process
5 because you have a metallic conductor there
6 where conventional methods can be used. The
7 Act refers--has two different standards,
8 basically, for metallic and non-metallic
9 structures that I believe that where you can
10 assimilate a metallic structure by using some
11 other method that there shouldn't be any
12 reason if you can get a conductor into a non-
13 metallic structure that it couldn't be
14 located to the same degree of accuracy as a
15 metallic structure.

16 Q Let me make a statement and see if you agree
17 with it. Because there are certain risks
18 involved in the gas line piercing of a
19 gravity fed sewer, it would seem to follow
20 that the location, the location of the
21 existing underground sewer utility is
22 paramount, has to be accurately located.
23 Whereas if the underground facility is cable
24 TV, telephone, water, it's not as risky and

1 not as essential that the underground
2 facility accurately located. Do you agree or
3 disagree?

4 HEARING OFFICER SHAPIRO:

5 I think he has already testified to
6 this. I think earlier his testimony was
7 that the situation here was--the
8 situation that was presented here was
9 more dangerous because of the nature of
10 the facilities. I mean, you have asked
11 him--hasn't this been asked and answered
12 several times? You started out, in
13 fact, if I'm not mistaken, you asked him
14 earlier to compare certain situations.
15 First, you had him crossing a telephone
16 line, then you had him crossing a cable
17 line, or I think it was vice versa. I
18 mean, hasn't that--how does this add
19 anything--how is this, first of all,
20 this is redirect or recross and his
21 redirect was related to items which were
22 raised for the first time on cross-
23 examination. But aren't we going back
24 now over something that has been gone

1 over earlier?

2 MR. SAUER:

3 Perhaps. Was the use of the word
4 adequately located, when is it safe?

5 HEARING OFFICER SHAPIRO:

6 Well, you asked him that and I
7 understood, and he answered that. That
8 was a question that he told you what--I
9 think he has responded to that. But now
10 we are going back to well, is it--are
11 these situations somehow worse in some
12 places than in some cases than in others
13 because of the nature of the facilities
14 that are used--that are involved. And I
15 believe we have already covered that.

16 MR. SAUER:

17 Okay. I'd like to ask one additional
18 question as a follow-up.

19 Q This relates to the question that you were
20 asked about Goshen Utilities efforts that, in
21 your judgement, they were not satisfactory.
22 Did Goshen Utilities make available to LG&E
23 its field location records in the
24 subdivision?

1 A Yes.

2 Q Did Goshen Utilities make available to you
3 its personnel including Robert Huffman?

4 A Yes.

5 MR. SAUER:

6 That's all the questions we have, thank
7 you.

8 MR. WUETCHER:

9 No questions.

10 HEARING OFFICER SHAPIRO:

11 Do you have any other witnesses?

12 MR. BROOKS:

13 No other witnesses.

14 HEARING OFFICER SHAPIRO:

15 Mr. Sauer, do you have a witness that wishes to
16 testify?

17 MR. SAUER:

18 We do, although Mr. Eades testimony will be brief.

19 HEARING OFFICER SHAPIRO:

20 Well, direct testimony may be brief, but his cross
21 may not be, so I think we'll take a break for
22 lunch. How much time do you all want, half an
23 hour? Okay, let's be back here at one o'clock.

24 (OFF THE RECORD)

1 HEARING OFFICER SHAPIRO:

2 Okay. Mr. Sauer, you want to call your witness?

3 MR. SAUER:

4 Yes, this is Jeff Sauer with Goshen Utilities, I'd
5 like to call Lloyd Eades, please.

6 (WITNESS DULY SWORN)

7

8 The witness, LLOYD EADES, having first been duly
9 sworn, testified as follows:

10 DIRECT EXAMINATION

11 BY MR. SAUER:

12 Q Mr. Eades, could you state your name for the
13 record please?

14 A I'm Lloyd Eades.

15 COURT REPORTER:

16 Spell your last name?

17 A E-a-d-e-s.

18 Q What is your position with Goshen Utilities?

19 A I am President of Goshen Utilities.

20 Q Okay. And, generally, what are your
21 responsibilities as President?

22 A Just run all day-to-day operations. I'm
23 completely head of the utility company.

24 Q Is it true that the utility company has

1 relatively few employees so you are hands-on
2 out in the field?

3 A That is correct.

4 Q How long have you been employed by Goshen
5 Utilities?

6 A Approximately 25 years.

7 Q Can you briefly describe the field location
8 records that Goshen Utilities has available
9 for the Lakeview Subdivision?

10 A The blueprints we have available. This
11 subdivision was developed, sewer, water
12 lines, et cetera, installed in approximately
13 1975, I would think, without checking the
14 records.. The records that we have indicate
15 that the blueprints were sent to the Division
16 of Water on water and sewer for approval.
17 Apparently, while installation was going on
18 and houses being built the--all the sewer
19 mains are located exactly according to the
20 way the prints show. But whereas building
21 went on, et cetera, houses were tied on, some
22 property lines possibly moved and whatever
23 for laterals or where it tees off the main
24 going to the houses are not in the--they are

1 not always right where they are supposed to
2 be.

3 Q So, you have field location records but,
4 regrettably, they are not always as accurate
5 as they might be?

6 A That is correct.

7 Q Can you tell us briefly the topography in the
8 area of the Lakeview Subdivision?

9 A It is gently rolling in most of the areas, a
10 good bit of rock in the area, which creates a
11 situation where sewer lines are relatively in
12 some areas very deep, some areas are
13 relatively shallow down to two and three feet
14 deep in some places.

15 Q Who is Robert Huffman?

16 A Robert Huffman is my outside superintendent
17 and generally takes--has been with me for in
18 excess of 20 years.

19 Q And, generally, what does he do day in and
20 day out for the company?

21 A He fixes water main leaks, any sewer
22 stoppages, day-to-day operations of the men
23 that work there, and that is generally it.

24 Q As an exhibit to our response to the

1 Commission Order, there was an agreement, it
2 is labeled Exhibit A, do you have a copy of
3 it?

4 A No, but I'm familiar with it.

5 Q You are familiar with it?

6 A Yes.

7 Q Yes. Do you agree with the statements made
8 in there concerning the agreement that was
9 reached?

10 A The statements in the agreement that you are
11 showing me?

12 Q This memorandum, Exhibit A?

13 A Yes, I do.

14 Q What, in your view, is the agreement or was
15 the agreement that you believe to be made
16 concerning the 31 potentially affected
17 residents?

18 A My understanding of the agreement was that we
19 were to provide our personnel and the field
20 records that we have now to LG&E's personnel
21 which would show up at the job site where
22 they had installed the water lines, or the
23 gas lines, that is, and we would give them
24 support in locating every place that the gas

1 line was supposed to be gone past the sewer
2 line to be assured that gas line had not
3 penetrated the sewer line.

4 Q So, the participation of Goshen Utilities
5 would be making those field records
6 available, together with somebody who was
7 familiar with them and could interpret them?

8 A That's correct.

9 Q Would Robert Huffman also be made available?

10 A That's correct, yes, he would.

11 Q In our response to the Commission Order of
12 Paragraph 6(a) we say Goshen has made
13 numerous efforts to obtain the cooperation of
14 LG&E to commence the digging and inspection
15 activities for the potentially affected
16 residents in the gas line construction area.
17 Is that true, to the best of your knowledge
18 and belief?

19 A To the best of my knowledge, that is true.

20 Q It also says Goshen Utilities stands ready,
21 willing and able to proceed with the
22 inspection; is that true today?

23 A That's true too.

24 Q Are all the other provisions in this response

1 true, to the best of your knowledge?

2 A To the best of my knowledge, they are.

3 Q With respect to the statute involved in
4 locating underground facilities, Underground
5 Facility Damage Protection Act, what is your
6 understanding of the responsibility of Goshen
7 Utilities?

8 A My understanding is whereas there is metallic
9 pipe or tracer tape or whatever with plastic
10 of any type of metallic piping that you are
11 to locate within 18 inches of the center line
12 of the whatever utility you are locating
13 whether it be gas, electric, telephone or
14 whatever. Where there is non-metallic you
15 are to locate to the best of your ability the
16 general area it is in and that area then
17 becomes a hand dig area.

18 Q Is there any requirement that you are aware
19 of that would mandate Goshen Utilities, or
20 any other utility located in Kentucky, to use
21 either a metallic pipe or a tape wire pipe
22 for a sewer line?

23 A No, its not, to my knowledge. It should be.

24 Q It was earlier testimony which you heard

1 about the differences in depth as a method by
2 which to assure that there has not been an
3 inadvertent piercing of a gas line into a
4 sewer line, can you describe your belief as
5 to the usefulness of that technique?

6 A I think it is a very good technique, I
7 totally agree with it.

8 Q Are there any circumstances where you would
9 think that technique was not a good idea?

10 A Yes, in areas where the--I agree with Buzz on
11 that, where the areas were that we felt that
12 the--there should be two to three feet
13 between the two elevations of the gas line
14 and the sewer line before we would do that to
15 assure ourself it has not been pierced.

16 Q There has been reference to a video camera as
17 a method by which a utility could locate
18 underground facilities. Do you--does the
19 company have such a camera?

20 A No. I am very familiar with it, we do rent
21 them periodically.

22 MR. SAUER:

23 That's all that we have for Mr. Eades at
24 this time.

1 MR. BROOKS:

2 Just briefly.

3

4

CROSS EXAMINATION

5 BY MR. BROOKS:

6 Q Good afternoon Mr. Eades. Regarding the Exhibit A
7 to the answer in the memorandum from Mr. Sauer's
8 associate, do you recall LG&E personnel meeting
9 with your company's personnel out in Lakeview
10 subdivision in mid to late August in an attempt to
11 locate service lines of the 22 affected customers?

12 A Yes, I do.

13 Q And isn't it true that great difficulty was
14 experienced in physically locating service
15 lines?

16 A That's absolutely true.

17 Q The agreement that is referenced in this
18 Exhibit A memorandum, how does what Goshen
19 agree to do under this, as what is explained
20 in this memorandum, differ than what Goshen
21 did for LG&E prior to the commencement of
22 that first Lakeview project?

23 A Would you mind repeating that? I didn't
24 follow that.

1 Q I'm sorry, yes, a little convoluted, I'm
2 sorry. The--I'm referring to the agreement
3 that is in the memorandum.

4 A Okay.

5 Q About Exhibit A.

6 A Okay, I'm following you.

7 Q And specifically what Goshen--what this says
8 Goshen agreed to do.

9 A Right.

10 Q How does what Goshen agree to do here differ
11 from what Goshen had done for LG&E regarding
12 locating service lines before LG&E commenced
13 the first Lakeview job?

14 A I really think nothing other than we would be
15 on the job site with LG&E's personnel to dig
16 whatever--will do whatever is necessary.

17 Q Would you expect any different results in
18 terms of actually locating your facilities
19 under this agreement as opposed to the
20 successfulness in locating facilities before
21 the Lakeview job was commenced? Do you
22 expect a better result?

23 A I would think a better result would be there
24 is if LG&E would stay out on the job for

1 whatever amount of time it takes to locate
2 all the people, work week-ends, nights,
3 whatever to find these, yes, I think there
4 would be a lot better results. It is going
5 to be a house by house situation in my
6 opinion.

7 Q But in terms of what Goshen would bring to
8 that activity, that really is no different
9 than what Goshen did prior to the
10 commencement of the Lakeview job.

11 A We have nothing else to bring.

12 Q You were talking with your counsel about the
13 Underground Facilities Protection Act, you
14 described the difference of the--as you
15 understood it, of the obligation of an
16 operator or a facility owner if they had
17 metallic pipe or something with metallic
18 tracer versus an operator who has non-
19 metallic pipe.

20 A Correct.

21 Q You used the term locate--what was the word--best
22 of your ability to locate the non-metallic pipe
23 and then you would mark that area and then that
24 became a hand dig area; do you remember that?

1 A That's correct.

2 Q When you said best of your ability, can you tell
3 me what you meant by that?

4 A Yes, if I go to--we would mark--we have and
5 we would mark where we feel the lateral going
6 to the house would be according to the plans,
7 but then we would mark the whole front of the
8 lot. So, my feeling is is if the contractor
9 for LG&E, whoever went out and pot holed the
10 thing where it was marked on the print and it
11 didn't become in that location, then it would
12 be the responsibility of LG&E or the
13 contractor to dig farther, go to the house,
14 put the metallic tracer wire through the
15 sewer, camera through the main to locate,
16 like Buzz said, I think this would be the
17 responsibility of the contractor at that
18 point. I think we have done--we have
19 satisfied the letter of the law when we said
20 what we have done. We are not installing the
21 piping, LG&E is installing the piping. We
22 are there, we are in place, we are in good
23 shape, it is retrofitting the subdivision.

24 Q So, when Goshen doing what it can "to the

1 best of its ability" to you that means
2 showing LG&E what is on your records and
3 having a person out there who is
4 knowledgeable giving whatever advice he can
5 give?

6 A That is correct.

7 Q And isn't it true that at some point during
8 these jobs Goshen marked off the entire
9 right-of-way as a hand dig zone?

10 A That is correct. Because there is things
11 there in that right-of-way.

12 Q And you just don't know where your facilities
13 are?

14 A In every case we don't.

15 Q Now, you stated that you occasionally rent the
16 type of camera that is used to scope out a main?

17 A Correct.

18 Q For what purposes do you do that?

19 A Well, we've had stoppages in sewer lines,
20 things of this sort that--breakage.

21 Q To locate precisely where that damage or
22 breakage may be?

23 A That is correct.

24 Q Just a second. Have you--has your company

1 ever used the metallic snake or metallic tape
2 before to locate pipe or other underground
3 facilities?

4 A We have.

5 Q And I believe, correct me if I'm wrong, but your
6 testimony is that either that or the camera would
7 be perfectly acceptable way to locate the sewer
8 services that we are talking about in this case?

9 A That's correct.

10 Q No reason not to use those?

11 A No reason not to use those.

12 Q Is there any reason why--

13 A The only thing it would be hard to use with
14 the snake, and Buzz brought that up, is the
15 99% of the people or 95% of them are not home
16 during the day and it is a matter of making
17 an appointment, getting into each house, and
18 the other things that Buzz brought up of
19 sewer lines, the way the plumbers have put
20 them in, run them out the back of the house,
21 circle the house, go to the front, et cetera,
22 just problems, but this is going to be just a
23 house by house situation.

24 Q But there is nothing that prevents Goshen

1 Utilities from renting a camera or requiring
2 that kind of metallic tape is there?

3 A There is not other than we do not feel this
4 is our responsibility under the law.

5 MR. BROOKS:

6 That's all I have. Thank you very much.

7 HEARING OFFICER SHAPIRO:

8 Mr. Eades, let me just ask you a few questions
9 concerning some of the testimony here today.
10 Earlier, and these questions relate to what I
11 asked Mr. Rush earlier. Mr. Rush in his testimony
12 and in response to a question I asked him,
13 essentially recommended that the problem be
14 addressed in two steps. First, the first step
15 would be to locate, pinpoint the location of the
16 underground sewer facilities and then the next
17 step would be to, I guess, excavate to determine
18 where those facilities intersect with the new gas
19 line. Do you agree that that would be the way to
20 address this problem?

21 A That would be--there are several different
22 ways to do it.

23 HEARING OFFICER SHAPIRO:

24 I know but I'm just saying--

1 A My personal feeling is if you--

2 HEARING OFFICER SHAPIRO:

3 I'm not asking you about the way, but I'm talking
4 about--is it your--do you also believe that that
5 is what you will have to do to address this?

6 A There is a possibility you wouldn't have to
7 go that far. If you were to use a camera and
8 go to each individual house and do that with
9 an appointment and put the camera through the
10 house out to the main then you would know
11 that there is not a sewer line in it so
12 ultimate you wouldn't have to dig up the
13 intersection--

14 HEARING OFFICER SHAPIRO:

15 But you do agree that the first thing that has to
16 be done is you have to locate the facility?

17 A That's correct.

18 HEARING OFFICER SHAPIRO:

19 And the second thing that needs to be done, then,
20 is to excavate in those areas where you believe
21 there has been a probability--

22 A Unless you run a camera from the house then there
23 would be no need to excavate.

24

1 HEARING OFFICER SHAPIRO:

2 Because then you would know where it was.

3 A You would know that there was not a gas line in
4 the sewer because you would be putting a camera
5 through from the house out to the main and there
6 would be no need to excavate then, especially
7 under areas where there is drive ways and et
8 cetera.

9 HEARING OFFICER SHAPIRO:

10 So, would it be your recommendation, then, that
11 instead of using the snake you would recommend
12 that the--a camera be used because that would, in
13 a sense, solve two problems at once. It would
14 locate the facility--I mean, locate the sewage
15 facility and at the same time it would determine
16 whether or not there has been a break in that
17 facility.

18 A I personally think it will take a combination
19 of both things, as Buzz said, and I agree
20 with him thoroughly because there is going to
21 be odd ball situations and I think it will
22 take a combination. I think it is still
23 going to take a house by house situation.

24

1 HEARING OFFICER SHAPIRO:

2 But you all--but you do agree with him in so far
3 as the general way, the general method to be used
4 in addressing the situation?

5 A I do.

6 HEARING OFFICER SHAPIRO:

7 Okay. Mr. Wuetcher.

8

9

CROSS EXAMINATION

10 BY MR. WUETCHER:

11 Q Good afternoon Mr. Eades.

12 A How are you sir.

13 Q I've just got a couple of general questions.

14 First, in relation to the road and to the
15 general easement, where are Goshen sewer
16 mains located in this area?

17 A Will you let me come over and show you?

18 Q Well, rather than do that if you could just tell
19 me--

20 A If you are looking at the print, you have got
21 a print of it.

22 Q Okay. Why don't you just describe to me where it
23 would be on LG&E Exhibit Number 1?

24 A Okay. You will have to go to section--you

1 want to go to section two.

2 Q Okay, is that the second page?

3 A That's correct, let me find something here.

4 Okay, where do you want to start. Let's look
5 at Cloverdale, okay, you see the road
6 Cloverdale?

7 Q Okay, Cloverdale, that would be on the--

8 A Okay, just at the top part of it you will see
9 what--

10 Q Is that on the--that is on the left side of
11 the page?

12 A That's correct.

13 Q Okay.

14 A Cloverdale, you are showing the sewer mains
15 in this particular location, you have a
16 manhole just in the upper part of that--where
17 it says Cloverdale, see the little round
18 circle with the sewer lines going in several
19 different directions, all directions out of
20 it.

21 Q Okay, I see it.

22 A Okay, that is the sewer mains. Now, on this
23 particular print it does not show the symbol for
24 the laterals or the property taps.

1 Q Okay. Now, is that--that is not actually on
2 the road itself? I mean, it is not
3 underneath the road.

4 A It in the road right-of-way. In some cases they
5 are in--if you look at the same symbols in
6 different places in here you will see--if you look
7 to the right, look over to the right you will see
8 a manhole, move from Cloverdale to the next symbol
9 up there. You see the manholes?

10 Q Okay.

11 A This is between Rosewood and what--I can't
12 see the name of the road. But anyway it
13 shows a manhole there and then it actually
14 runs under the road down through an
15 intersection.

16 Q Okay.

17 A So, it is all different situations.
18 Sometimes--in some cases the sewer lines were
19 designed to be under the roadway, in the
20 middle of the road, sometimes on one side of
21 the road, sometimes in the back of houses,
22 different situations. They don't run
23 constant, in other words, there is no reason
24 to, again, a lot to do with the lay of the

1 land.

2 Q Okay. As to Goshen's responsibility for the
3 service line, exactly where--what portions of
4 the service line, if any, is Goshen
5 responsible for?

6 A We are required--we are responsible to the
7 property line or the easement line of the
8 property.

9 Q Okay. Going back for a second, you said you
10 have been with Goshen for 25 years. You are
11 the owner of Goshen, right?

12 A Excuse me?

13 Q Are you the principal stockholder?

14 A I'm 50% stockholder.

15 Q And you have been with Goshen for 25 years?

16 A That's correct, thereabouts.

17 Q I take it you have been principal stock, or
18 that one of the--

19 A Principal stockholder for about ten.

20 Q For ten, okay. And before that time what was
21 your capacity?

22 A We actually had, even before that time we had
23 another development company that I was vice
24 president of and that development company a

1 lot of time, in a lot of cases actually
2 maintained Goshen Utilities service, so--and
3 I come to Goshen 25 odd years ago to lay
4 water lines as a contractor, cross country,
5 and never left. I've either--

6 Q Okay. I guess it has been agreed upon by
7 both LG&E and Goshen that there are 31 houses
8 involved or that are potentially affected by
9 the water main extension, those mains--the
10 gas main could--

11 A Correct.

12 Q --have potentially pierced the sewer line?

13 A Right.

14 Q What efforts has Goshen taken to correct the
15 problem?

16 A The only thing we have taken place is if we
17 have--after we experienced the first one
18 stopped up, and I had found a rotorooter
19 truck out there and I was afraid someone was
20 going to get blown away because--by piercing
21 the gas line. Our next thing is we contacted
22 LG&E and they, in a very timely manner,
23 responded as the contractor, as they have in
24 all cases, by the way. And, we, at that

1 afternoon, that we located the first one we
2 were very aware of the problem. We went back
3 to the office, we had letters typed up, we
4 requested LG&E to do it too, but they--they
5 couldn't do it as quick as we could. We were
6 there, we hand delivered--I hand delivered
7 notices to everyone up and down the road and
8 from that point on we have met with LG&E and
9 we have done all the things we have done
10 until we got here. And that is all we have
11 done other than making people aware that
12 there could be a problem, could be a problem.

13 Q So, there has been no effort on Goshen's part
14 to actually go into the homes of these resi--
15 or go into the residence themselves and try
16 to use a metallic snake or some other device
17 to go ahead and chart where the service
18 lines--

19 A Other than when LG&E was out there. They
20 were out there for a day, am I correct Buzz,
21 I believe--

22 HEARING OFFICER SHAPIRO:

23 You just talk, you just testify based
24 upon what you remember the situation.

1 A Okay. As I recall, they were out there for
2 one day, LG&E was, and if I am correct, that
3 was the day that we ended up putting snakes
4 in houses, the ones we could get in, et
5 cetera, et cetera.

6 Q How many houses were you all able to get
7 access to?

8 A I can't answer that, I don't know.

9 Q Well, was it more than five or?

10 A I don't know, I really don't know.

11 Q Well, in any event--

12 A I can find out, I just don't know.

13 Q Okay. Were you there on site?

14 A No, not all the time.

15 Q Okay. I guess it was Mr. Huffman?

16 A Huffman up there, yes.

17 Q Would it be correct, then, to say that the
18 primary problem has just been getting access
19 to those houses?

20 A I would think so, yes. That and the ability
21 to run a snake out.

22 Q Okay.

23 A If we could get into the house, run a snake
24 out and stake it and it would stay there long

1 enough for these folks to dig it up.

2 Q How much are we talking about in terms of
3 cost to the extent of going ahead and having
4 someone go in and put a snake from the inside
5 of the house and then going ahead and
6 detecting the location of the line?

7 A I don't think there would be a problem if we
8 could find people home or they will let us
9 come in their house. In a lot of cases they
10 just don't want you in their house, just stay
11 out. I don't imagine it would cost over
12 \$100.00 a home maybe, I mean, I'm estimating
13 of course.

14 Q And those are the ones where you can use a
15 snake.

16 A That's correct.

17 Q I think you had said before you expect that
18 in at least some instances you may not be
19 able to use a snake and then you'd have to go
20 to a camera?

21 A I think that has already been found.

22 Q Okay. And in those cases--

23 A They finish basements in a lot of cases and
24 all the clean outs and things that you should

1 be able to get to are not there, they're
2 covered up.

3 Q In those cases, if I am recalling your
4 testimony correctly, you actually have to go
5 back and use, for example, a camera or
6 something else to go in and inspect the home?

7 A You would go to a manhole in the street is
8 what you would do and you run the camera up
9 until you can see the tee in the pipe, then
10 you measure, pull it back then you can make
11 the determination where it is. Then LG&E can
12 dig again.

13 Q Okay. And how much would that cost? You
14 said you have used these cameras before?

15 A I'm not quite sure, I think the cameras run--
16 I believe they run about \$150.00 an hour, I
17 believe, or less maybe, I believe I'm correct
18 there.

19 Q And where we are looking at this you said
20 before you have based all this on a factor
21 that the workers are there, it is not--you
22 are doing normal work hours and what not, you
23 are saying there would be additional cost if
24 this was done, for example, in the evenings

1 or on week-ends?

2 A Absolutely.

3 Q Labor costs are going to be more because of
4 overtime concerns?

5 A That's correct. And since we have gone by
6 the letter of the law, I feel that LG&E
7 should eat that cost.

8 MR. WUETCHER:

9 Thank you, that's all we have.

10 HEARING OFFICER SHAPIRO:

11 Well, wouldn't it be quicker than to use the
12 camera method? You don't need to--you don't need
13 to meet--you don't need to have people at home in
14 order to do this. If you went to a home and there
15 was nobody there and you couldn't get in, but if
16 you have a camera, you could use the camera and
17 you could locate where the problem is, can't you?

18 A You could locate at the main where the pipe
19 tees off going toward the house in most cases
20 if you don't have too much flow in the pipe,
21 et cetera. I mean, if you have a lot of
22 flow, if you run a camera up and I don't know
23 whether you ever looked at them or not, you
24 get such amount of flow you just can't see

1 everything like you should. It is not a
2 perfect situation. None of these are perfect
3 situations. You try one, if it doesn't work,
4 you try the others down to digging completely
5 all the way in front of the house.

6 HEARING OFFICER SHAPIRO:

7 Any redirect?

8 MR. SAUER:

9 No.

10 HEARING OFFICER SHAPIRO:

11 Thank you Mr. Eades. You asked for some
12 information?

13 MR. WUETCHER:

14 Yes, Staff made several requests to LG&E. If
15 those could be provided, would five days be too
16 long--I'm sorry, would five days be too short? Is
17 that information readily available or--

18 MR. BROOKS:

19 Let me check, I think it is. We should be able to
20 get all this information put together and filed by
21 next Friday. If we encounter some unexpected
22 delays, we will let you know, but we should be
23 able to do that.

24

1 MR. WUETCHER:

2 I think we can live with that.

3 HEARING OFFICER SHAPIRO:

4 Okay. Anything else that needs to be addressed at
5 this point?

6 MR. WUETCHER:

7 I would make one request on behalf of Staff.
8 Judging from some of the cross-examination that
9 was done, that there is a potential possibility
10 that the parties may engage in some further
11 discussions and may resolve this without the need
12 for the Commission to make a decision. And I
13 would simply request that if there is some
14 resolution that is reached that would permit the
15 inspection of these facilities next week, I'd ask
16 that the Commission Staff be advised so that we
17 could send out someone who could also monitor the
18 situation, either--I'll be happy to give either
19 counsel or both counsel the telephone numbers of
20 the persons on our staff that could be contacted.

21 MR. SAUER:

22 Goshen would certainly agree to that.

23 MR. BROOKS:

24 That's fine.

1 HEARING OFFICER SHAPIRO:

2 Anything else? There being nothing further then,
3 this hearing is adjourned.

4 (OFF THE RECORD)

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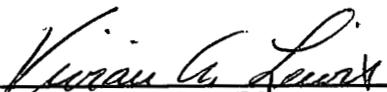
CERTIFICATE

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STATE OF KENTUCKY)
COUNTY OF FRANKLIN)

I, VIVIAN A. LEWIS, a Notary Public in and for the state and county aforesaid, do hereby certify that the foregoing testimony was taken by me at the time and place and for the purpose previously stated in the caption; that the witnesses were duly sworn before giving testimony; that said testimony was first taken down in shorthand by me and later transcribed, under my direction, and that the foregoing is, to the best of my ability, a true, correct and complete record of all testimony in the above styled cause of action.

WITNESS my hand and seal of office at Frankfort, Kentucky, on this the 1st day of March, 1999.


VIVIAN A. LEWIS
Notary Public
Kentucky State-at-Large

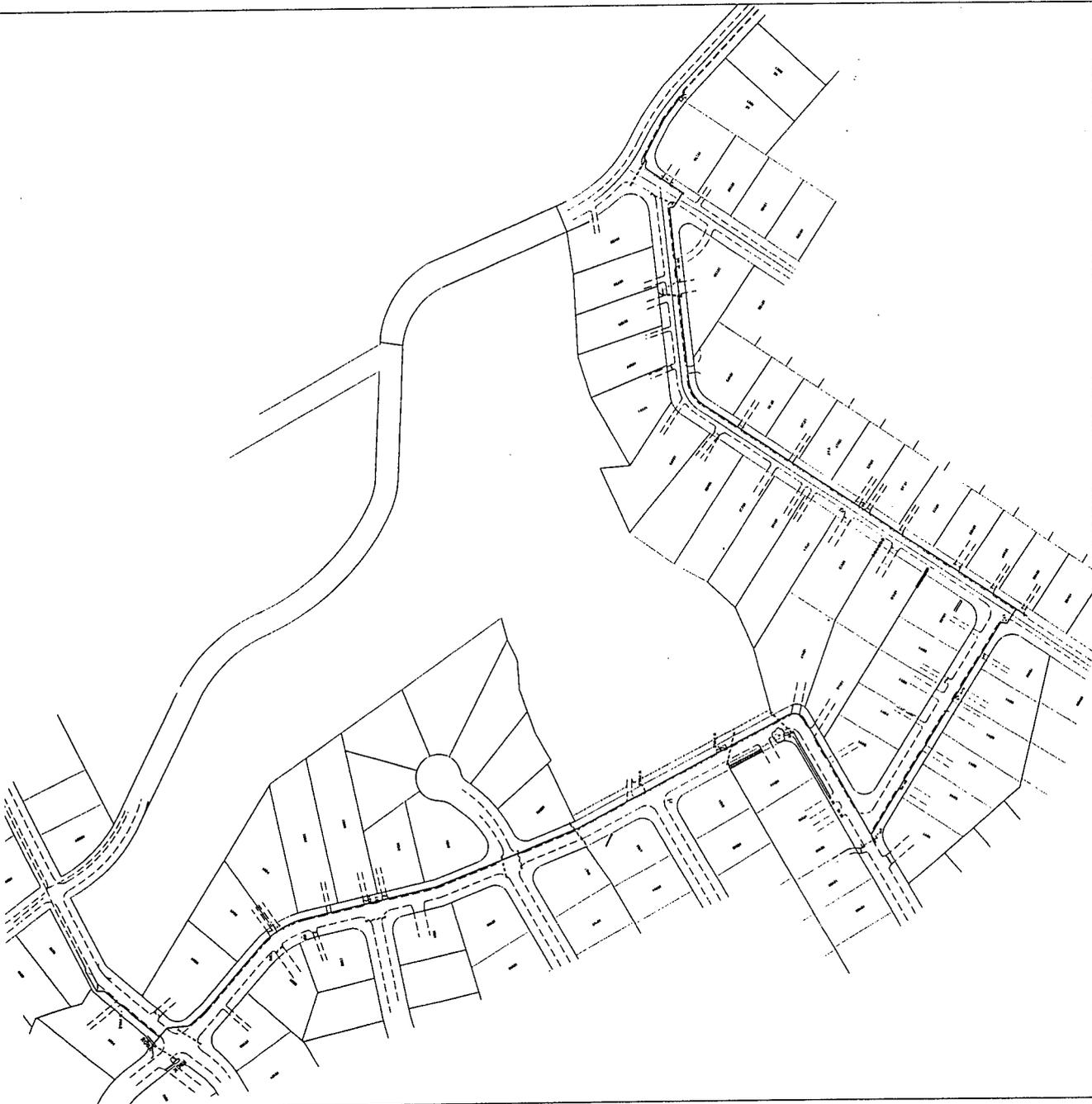
My commission expires: 7-23-01

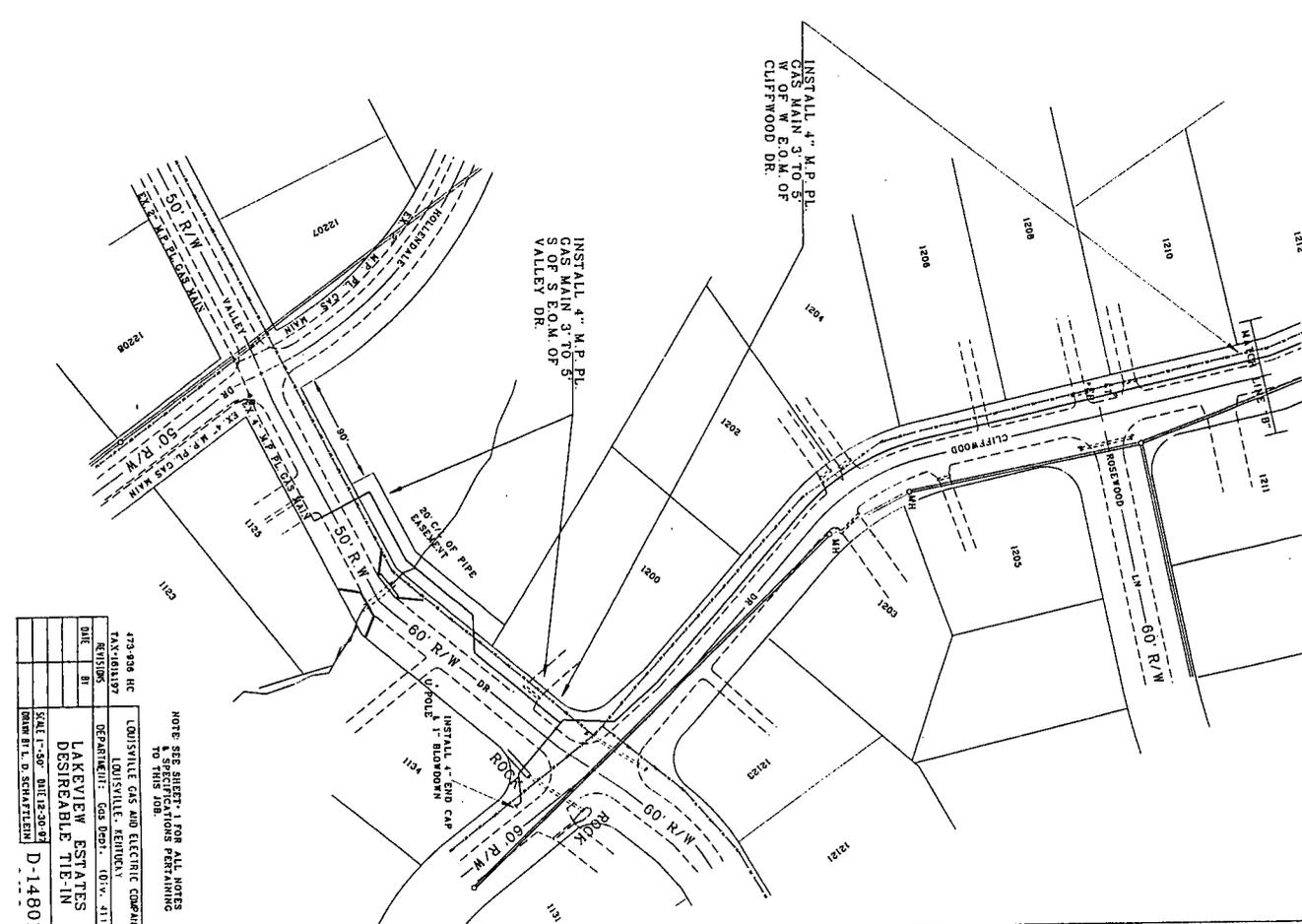
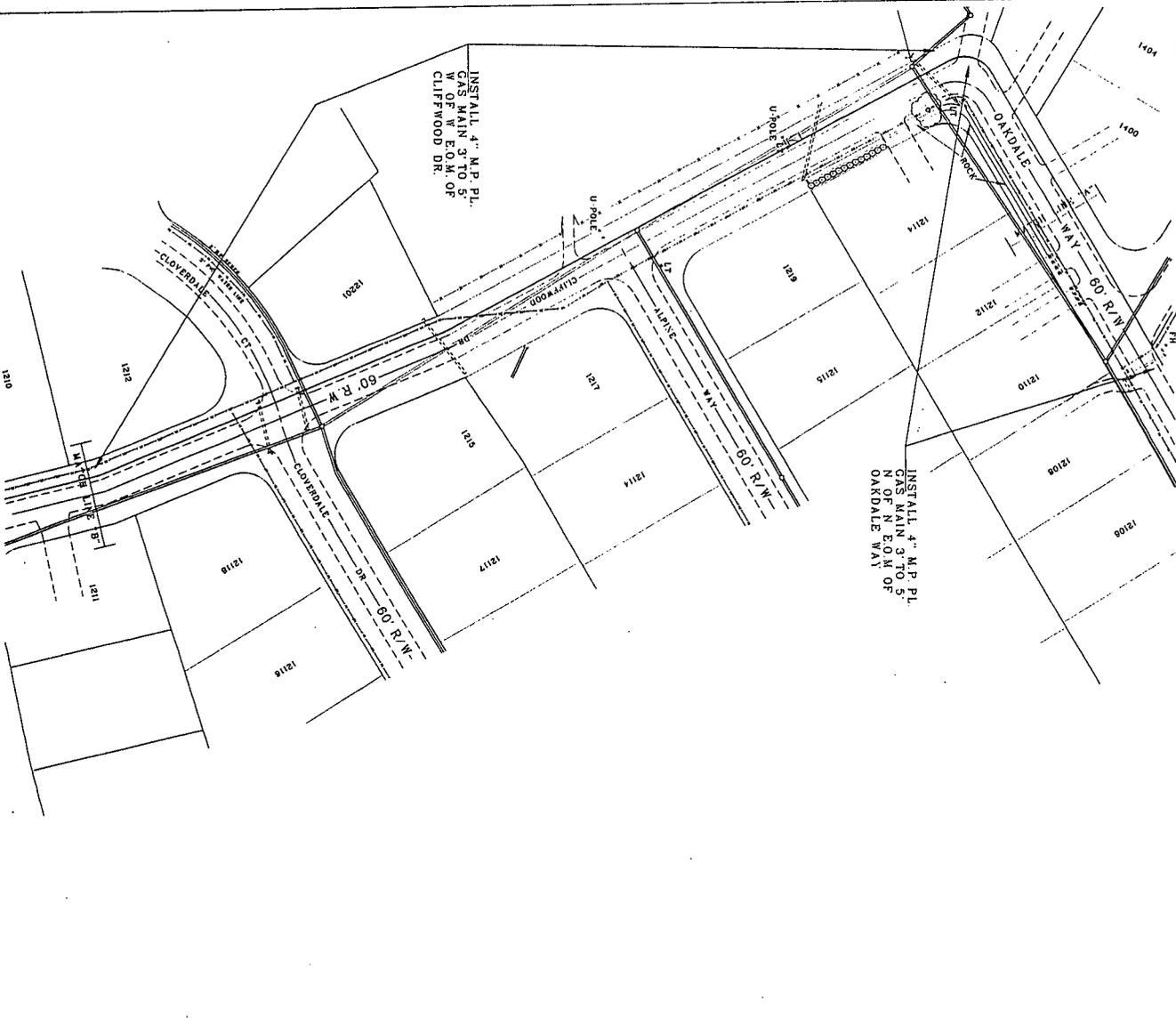
FRANKFORT, KE.

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167E
EXHIBIT NO. 1
2-24-99
V. LEWIS 99-072







INSTALL 4" M.P. PL.
GAS MAIN 3' TO 5'
W OF W E.O.M. OF
CLIFFWOOD DR.

INSTALL 4" M.P. PL.
GAS MAIN 3' TO 5'
N OF N E.O.M. OF
OKDALE WAY

INSTALL 4" M.P. PL.
GAS MAIN 3' TO 5'
W OF W E.O.M. OF
CLIFFWOOD DR.

INSTALL 4" M.P. PL.
GAS MAIN 3' TO 5'
S OF S E.O.M. OF
VALLEY DR.

INSTALL 4" END CAP
EASMENT 1' BROADWAY

NOTE: SEE SHEET 1 FOR ALL NOTES
TO THIS JOB.

423-928 HC	CONSULTING GAS AND ELECTRIC COMPANY
TAX ID: 1517	LEADVILLE GAS AND ELECTRIC COMPANY
REVISIONS:	DEPARTMENT: 605 DESK - (315) - 411
DATE: 8/1	DESIGNER: LAKVIEW ESTATES
	DESIREABLE TIE-IN
SCALE: 1"=50'	DATE: 12-20-04
DRAWN BY: D. SCHAFFELIN	D-14801



LOCATION DRAWING
1/4" SCALE



A TEST WIRE & A 9'-AVODE SHALL BE INSTALLED ON THE STEEL GAS MAIN & THE TIE-IN.

CONTRACTOR SHALL MAKE ALL TIE-INS AND CUT OUTS; AND CONTRACTOR SHALL RETURN TO JOB SITE AND MAKE ALL FINAL CUT OUTS AND BACKFILL ALL COMPLETED SERVICE CHANGE-OVER HOLES.

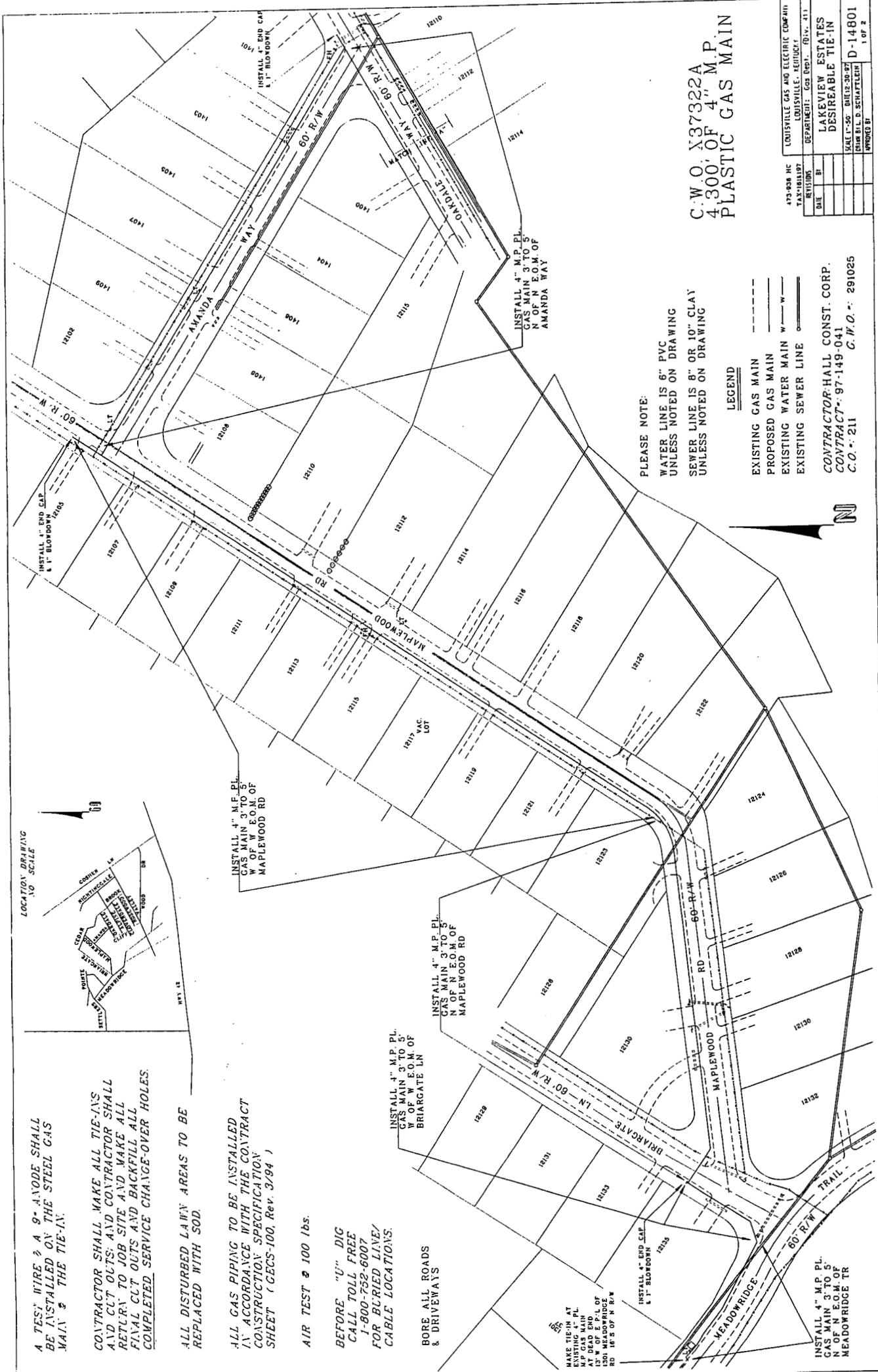
ALL DISTURBED LAWN AREAS TO BE REPLACED WITH SOD.

ALL GAS PIPING TO BE INSTALLED IN ACCORDANCE WITH THE CONTRACT CONSTRUCTION SPECIFICATION SHEET (CECS-100, Rev. 3/94)

AIR TEST @ 100 lbs.

BEFORE "U" DIG CALL TOLL FREE 1-800-752-6007 FOR BURIED LINE/CABLE LOCATIONS.

BORE ALL ROADS & DRIVEWAYS



PLEASE NOTE:
WATER LINE IS 6" PVC UNLESS NOTED ON DRAWING
SEWER LINE IS 8" OR 10" CLAY UNLESS NOTED ON DRAWING

LEGEND
 --- EXISTING GAS MAIN
 - - - PROPOSED GAS MAIN
 - - - EXISTING WATER MAIN
 - - - EXISTING SEWER LINE

CONTRACTOR: HALL CONST. CORP.
 CONTRACT #: 97-149-041
 C.O.#.: 211
 G.W.O.#.: 291025

C.W.O. X37322A
 4,300' OF 4" M.P. PLASTIC GAS MAIN

475-008 HC	LOUISVILLE GAS AND ELECTRIC COMPANY
TAYLORVILLE	LOUISVILLE, KENTUCKY
DATE	DEPARTMENT: GAS DEPT. (R) 11-11
BY	
DATE	SCALE: 1"=50' DATE: 12-30-97
BY	FOR: M. D. SCHAFFLEIN
DATE	APPROVED BY:

